V-1 FLYING BOMB CLOSE-UP

THE EDITOR TAKES A WALK AROUND THE FIESELER FI 103 V-1 FLYING BOMB ON DISPLAY AT THE AUSTRALIAN WAR MEMORIAL IN CANBERRA

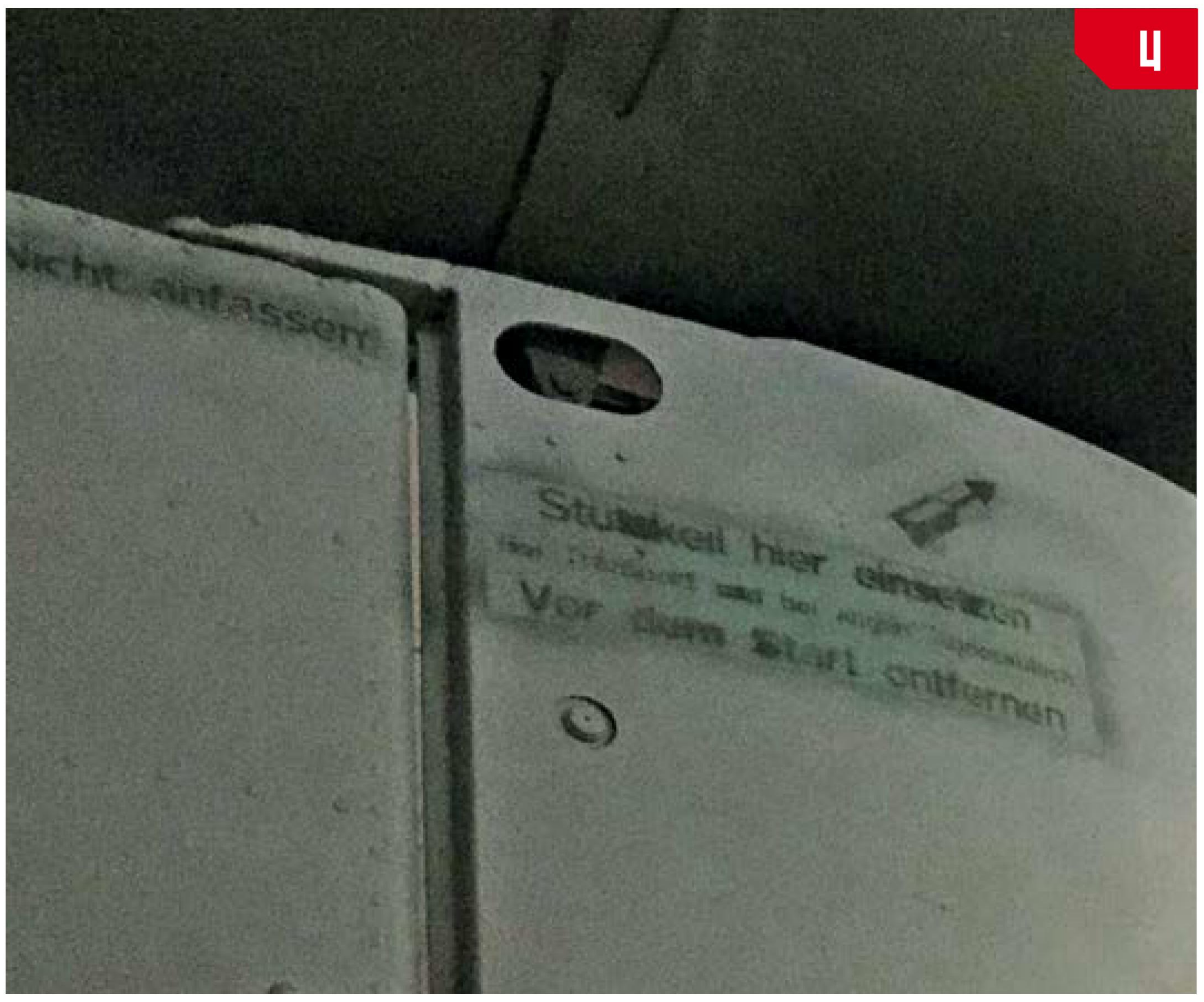
This year marks the 75th Anniversary of the first launching of a V1 rocket against Britain.

The Australian War Memorial has an intact Fieseler Fi 103 V-1 Flying Bomb on display, hanging from the ceiling in the WWII section.

The V-1 has been repainted in a wartime scheme, but a number of patches have been left in original condition, showing the wartime stencils and original paintwork.

Some of the photos are grainy as the display is in a very dark area, but some interesting details and colours are still quite clear.

Let's take a closer look at Canberra's V-1. ■



1: A view of the warhead and forward fuselage. 2: This fascinating photo shows original wartime stencils masked over when the exhibit was repainted. 3: The tail and rudder unit with more original paint and wartime stencils. 4: A grainy but still useful close-up of the tail stencils. 5: Horizontal stabiliser and elevator. Control surfaces are essentially the same as an aircraft. 6: A nice view of the front of the pulse jet engine and mid-fuselage.

FULL-SIZED REFERENCE – V-1 FLYING BOMB CLOSE-UP

7: Substantial fire damage on the lower mid fuselage was not repaired during restoration.
8: The substantial gap at the wing root may be seen here.
9: A nice clear view of the starboard side warhead and mid-fuselage.
10: An overall view showing very clearly the mixture of Light Blue and Sky shades on the lower surfaces.
11: Starboard wing. Note the smooth featureless finish.
12: Profile of the V-1.

ROYAL AIR FORCE JETS ARRIVE IN OMAN FOR MAJOR DESERT EXERCISE

RAF Typhoon jets and a Voyager air-to-air refueller arrived at the Air Exercise area in Dhofar Governorate, Oman, in November 2021 to prepare for Exercise MAGIC CARPET, an annual bilateral exercise with the Royal Air Force of Oman (RAFO).

The Typhoons, (II(AC) Squadron RAF Lossiemouth and 12 Squadron RAF Coningsby) and a Voyager (RAF Brize Norton) with over 300 RAF support personnel have now started the two-week exercise in the Air Exercise area. The Royal Air Force will be working with the Royal Air Force of Oman to deliver challenging training to RAF and Omani pilots, comprising of air-to-ground missions and air-to-air refuelling of aircraft.

The Detachment Commander and Officer Commanding II(AC) Sqn said: "During the two-week exercise we will be conducting challenging flying missions together with our Omani colleagues, continuing to build on our close longstanding relationship with Oman.

"We are working together very much as equal partners in the relationship. Integrating every element of our operations from planning to briefing, flying and debriefing. There are many opportunities to learn and develop from our collective experience. We have received a warm welcome from our Omani hosts and look forward to our opportunities to socialise together after work as well."

The Officer Commanding 12 Squadron, Wing Commander Chris Wright said: "We are delighted to be invited to Exercise MAGIC CARPET. The exercise is all about integrating with our Omani colleagues, practicing different scenarios in the skies over Oman."

The exercise strengthens the RAF's role as a key partner for Oman, demonstrates its ability to deploy world class capabilities and deliver high quality training opportunities. This bilateral, multi-domain exercise, while not unique, provides further evidence of the United Kingdom's integrated approach to defence and foreign policy and the UK's enduring commitment to working with Oman and Gulf partners on promoting regional security and stability. ■

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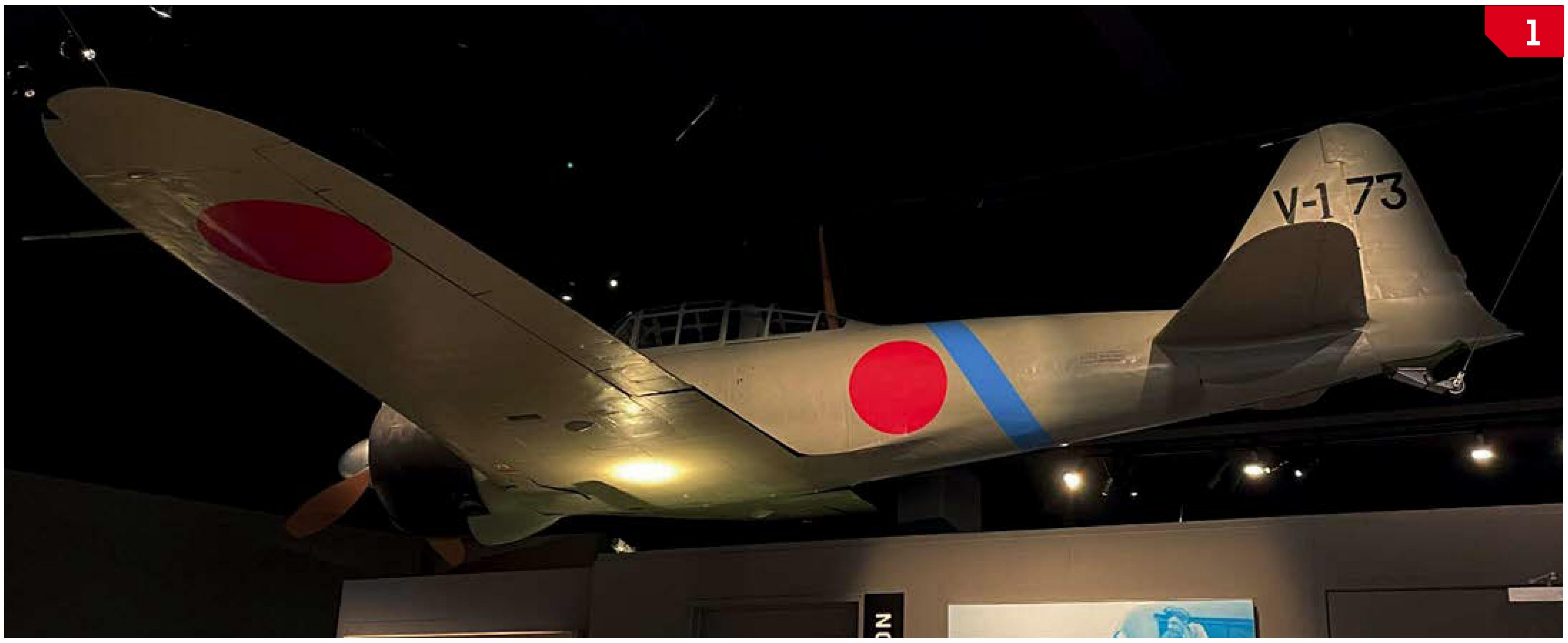
A6M2 ZERO TYPE 21 CLOSE-UP

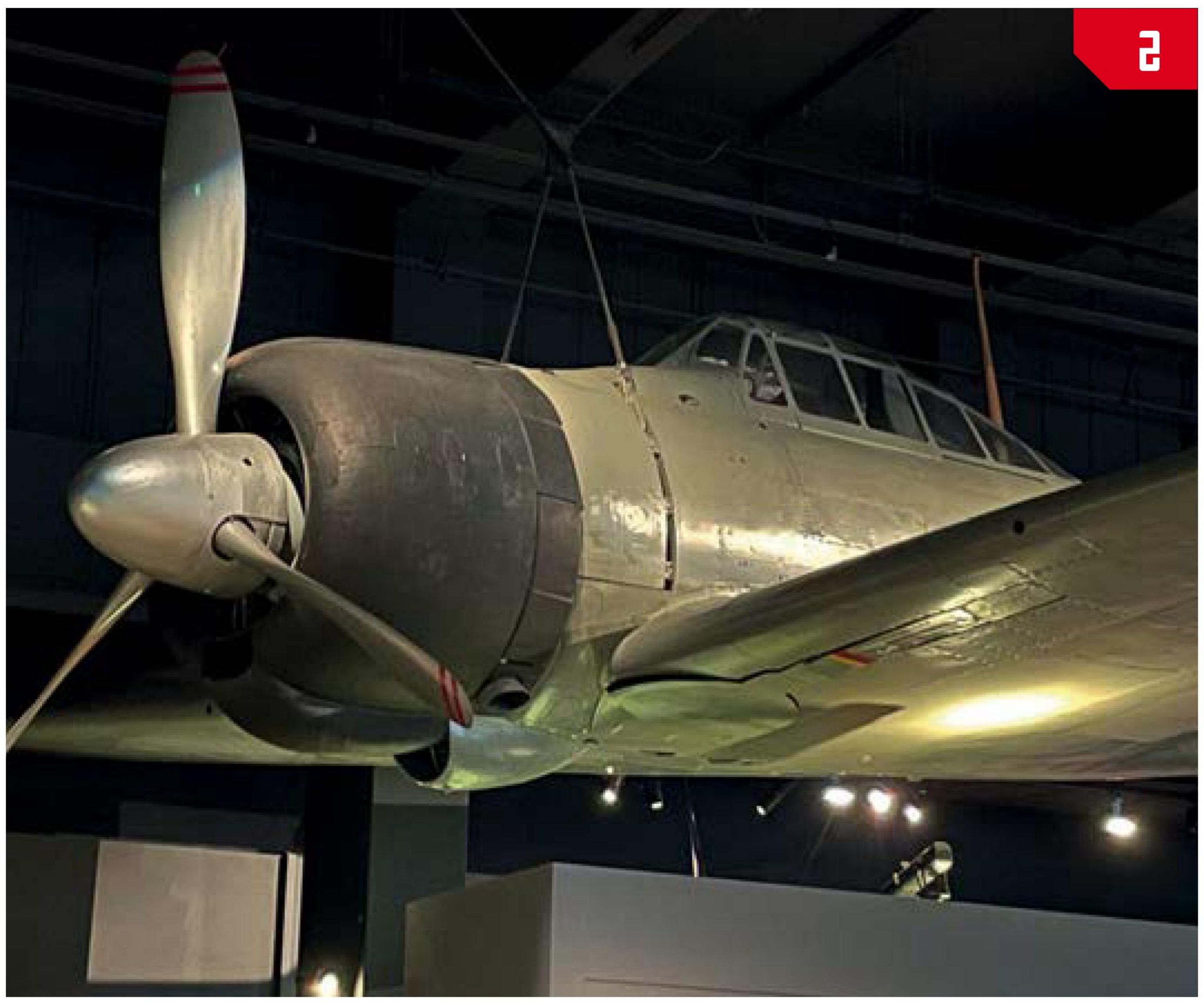
BRETT GREEN GETS UP CLOSE TO THE AUSTRALIAN WAR MEMORIAL'S A6M2 ZERO TYPE 21

The Australian War Memorial holds a rare and significant A6M2 Zero Type 21 as part of its collection on public view in the Main Aircraft Hall.

This aircraft was flown by the fourth ranking Japanese air ace, Saburo Sakai. He used this machine while serving with the Rabaul-based Tainan Flying Group (Tainan Kokutai) in June-July 1942.

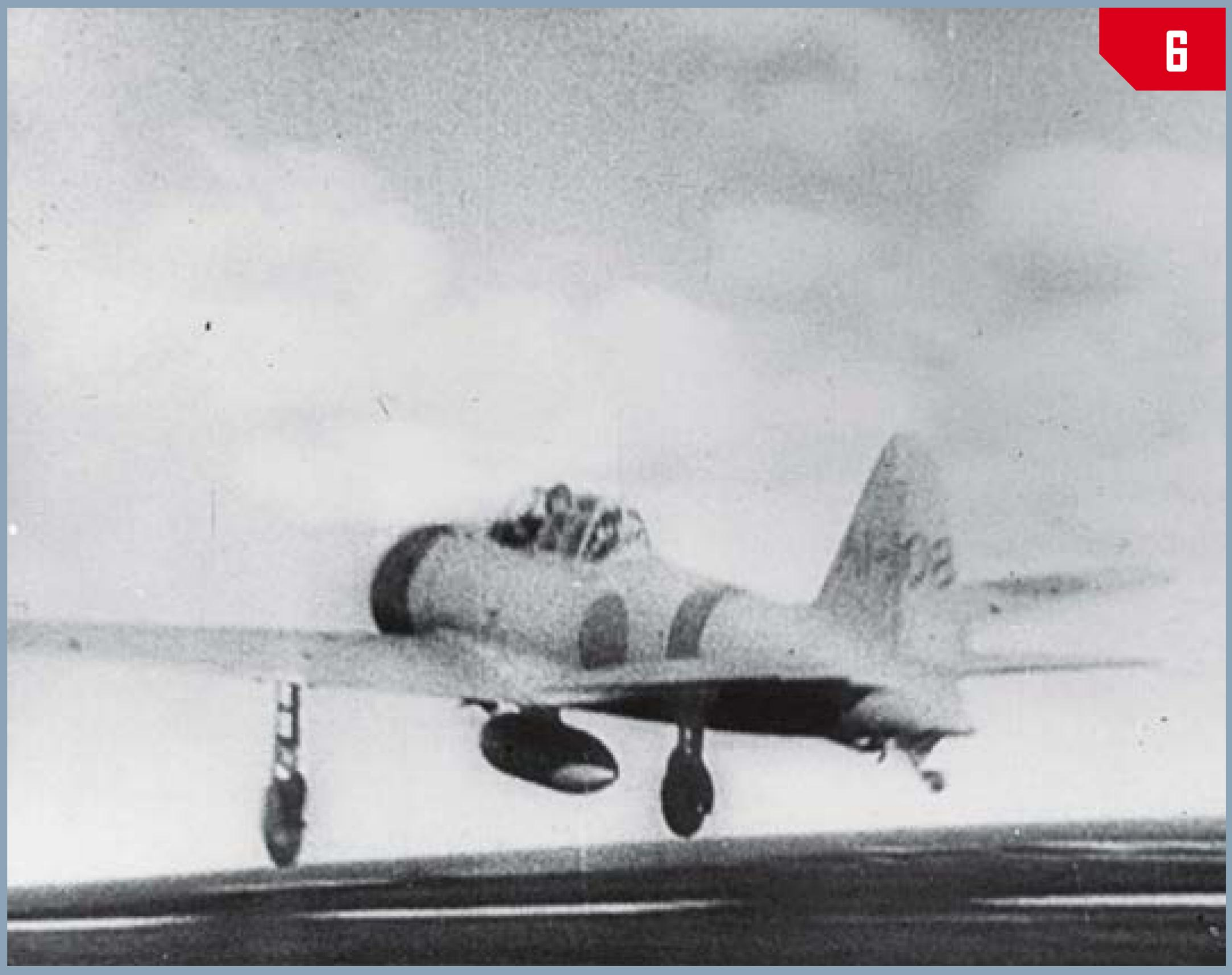
It was probably while flying this aircraft over Buna, New Guinea, on 22 July 1942 that Sakai shot down an RAAF Lockheed Hudson Mk IIIA A16–201 flown by Pilot Officer Warren Cowan, Pilot Officer David Taylor, Sergeant Russell Polack and Sergeant Lauri Sheard. A16–201 was spotted over Buna by nine Mitsubishi A6M2 Zeroes of the Tainan Kaigun Kokutai, led by Sakai. Rather than attempt to evade the Zeroes, the Hudson made a very sharp U

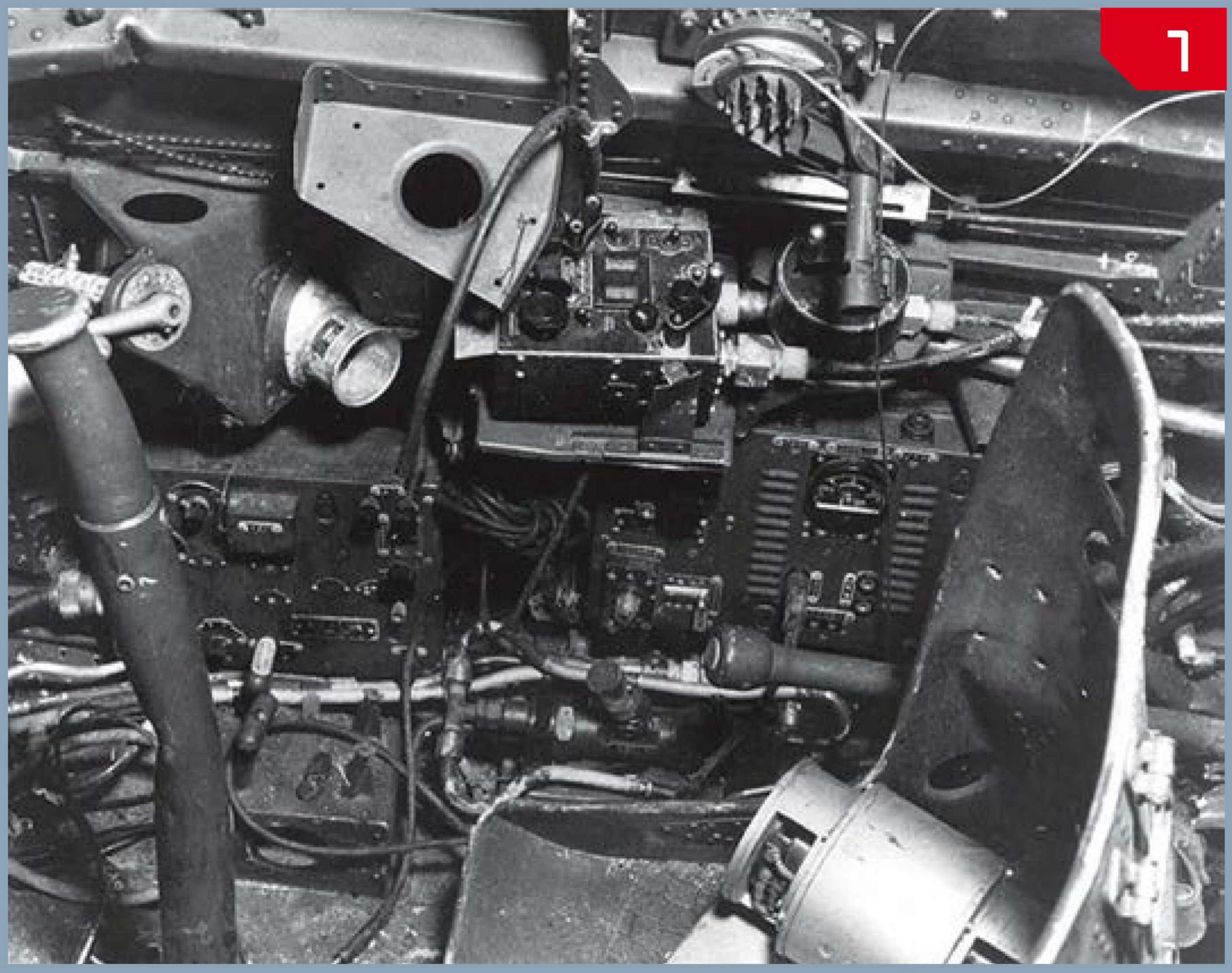




1: The Australian War Memorial's A6M2 Zero Type 21 is suspended from the ceiling in the dimly lit Aircraft Hall. 2: A good view of the propeller assembly and the engine cowling. 3: A front on view of the Zero's intakes – one located on the bottom of the engine cowling and one just aft on the centreline of the fuselage. 4: The assembly sequence of the AWM's Zero landing gear covers is incorrect. The lower cover, the one for the wheel, should overlap the upper cover. This is why those horizontal stripes are on the upper cover. They act as gauges for the amount of squat when the plane is sitting on the ground. Clearly this won't work as shown (thanks to John Ferguson for this information). 5: The smooth rear fuselage.

FULL-SIZED REFERENCE – A6M2 ZERO TYPE 21 CLOSE-UP





6: Mitsubishi A6M2 Zero Type 21 takes off from the aircraft carrier Akagi bound for Pearl Harbor. 7: A view of the starboard cockpit console of an A6M2 that crashed into Building 52 at Fort Kamehameha during the attack on Pearl Harbor, killing the pilot.

turn, and came straight at the Zeros with all guns blazing. For the next 10 minutes Cowan and his crew fought a turning dogfight, one against nine. Years later Sakai recollected that "I saw the gunner throw his hands up and collapse. Without the interfering stream of bullets from the turret, I closed in to 20 yards and held the gun trigger down, aiming for the right wing. Seconds later, flames streamed out and spread to the left wing." The aircraft caught fire and crashed in jungle near the coastal village of Popogo. Many years after the war's end, Sakai asked Australian researchers to help him identify the then unknown Australian pilot and crew.

In 1997, Sakai wrote to the Australian government, recommending that Cowan be "posthumously awarded your country's highest military decoration". The suggestion was rejected on the grounds that all such recommendations had been closed at the war's end.

At an as-yet unknown date, the aircraft was damaged, and abandoned on the airfield at Gasmata Island. In 1976 it was shipped to Australia and subsequently acquired by the Australian War Memorial. It was restored on behalf of the Memorial by the apprentice school at RAAF Forest Hill, Wagga over a five year period and returned to the AWM in 1986. Its first public display was at the Bicentennial Airshow at RAAF Richmond, New South Wales (NSW), in 1988.

Descriptive text courtesy of Australian War Memorial https://www.awm.gov.au ■

Mitsubishi A6M3 Zero wreck abandoned at Munda Airfield, Central Solomons, 1943. Although it is a later variant, the sun-bleached IJN Grey Green is of interest.

SAMPLES FOR REVIEW

Please send all items for review to the following address: Model Airplane International, Doolittle Mill, Doolittle Lane, Totternhoe, Bedfordshire, LU6 1QX, United Kingdom. Companies in the European Union should also add our VAT number, which is GB 789 7020 84

VALIANT WINGS

The North American P-51D/K Mustang

Including the P-51H & XP-51F, G & J (Airframe & Miniature No.18)
A Complete Guide To The Cadillac Of The Skies

www.valiant-wings.co.uk

- By Richard A. Franks
- Published by Valiant Wings Publishing Ltd
- Guide Price £24.95
- ISBN 978-1-912932-23-8
- 272pp softback, 297 x 210mm

This is a very welcome new addition to the Valiant Wings series, a comprehensive look at the P-51 late version Mustangs from the modeller's point of view. Airframe & Miniature No. 6 covered the early version Mustangs and initial development.

The format of the book follows the familiar pattern with the welcome inclusion of more colour photos. Being an American aircraft and the fact that colour photography was being used more frequently in the USA in the early 1940s, more colour pictures appear in archives. As well as the colour photos, US airmen appear to have been taking loads of photos with their Kodak cameras during their time in service.

As usual, the book opens with a Preface chapter that takes the reader through the gestation and development of the Mustang family from the introduction of the P-51D, ending with a look at the vast number of foreign P-51 customers. Mustangs were used by many air forces, including the USAF well into the 1950s with many used in the Korean War and then by US Air National Guard units into the mid-1950s. Some foreign air forces would continue to use Mustangs into the late 1960s.

Chapter 1 covers the Evolution of the later standard Mustangs and then moves on to Chapter 2, describing the development of Photo Reconnaissance and Trainer Mustang versions. Chapter 3 looks at Mustang production by foreign nations and the Lightweight and Cavalier Mustangs.

Of interest to any Mustang kit builder is Chapter 4 on Camouflage and Markings. Many Mustangs were finished in camouflage colours, commonly variations of Olive Drab upper surfaces and Neutral Gray undersides. Also, many flew in natural metal or silver paintwork or a combination of the two. The USAAF were famous for their distinctive schemes with colourful noses, rudders, etc, giving their aircraft names and applying nose art. One page explains how American crews would fill the panel lines and rivets on Mustang wings using putty, apply paint, clear lacquer and polish the surface to a super-smooth finish. This treatment would help the aircraft slip through the air more easily. Another few miles an hour on top speed and improved fuel consumption could make all the difference. This chapter is generously illustrated with photos and Richard Caruana's excellent colour artwork profiles and plan drawings. The final pages cover schemes applied to Mustangs operated by various countries around the world.

Mustangs have been kitted dozens of times, spread over all the common scales. Maybe 109s have been moulded more times but there has been no shortage of Mustangs over the years since plastic kits were first produced. As the list of kits is so long, Valiant Wings has taken the wise decision to concentrate on the more recent releases. Chapter 5 takes a narrative review of some of the kits that are currently available. Each review, starting with 1:144 kits takes a look at the good and not so good features of each kit and gives a final verdict on each one. Reviews in all scales conclude with a look at two 1:24 kits, the ancient Airfix kit and the old but more recent Trumpeter release. The list of manufacturers mentioned in Chapter 5 is a who's who of those appearing in all good model shops from Airfix to Zoukei Mura and all those in between.

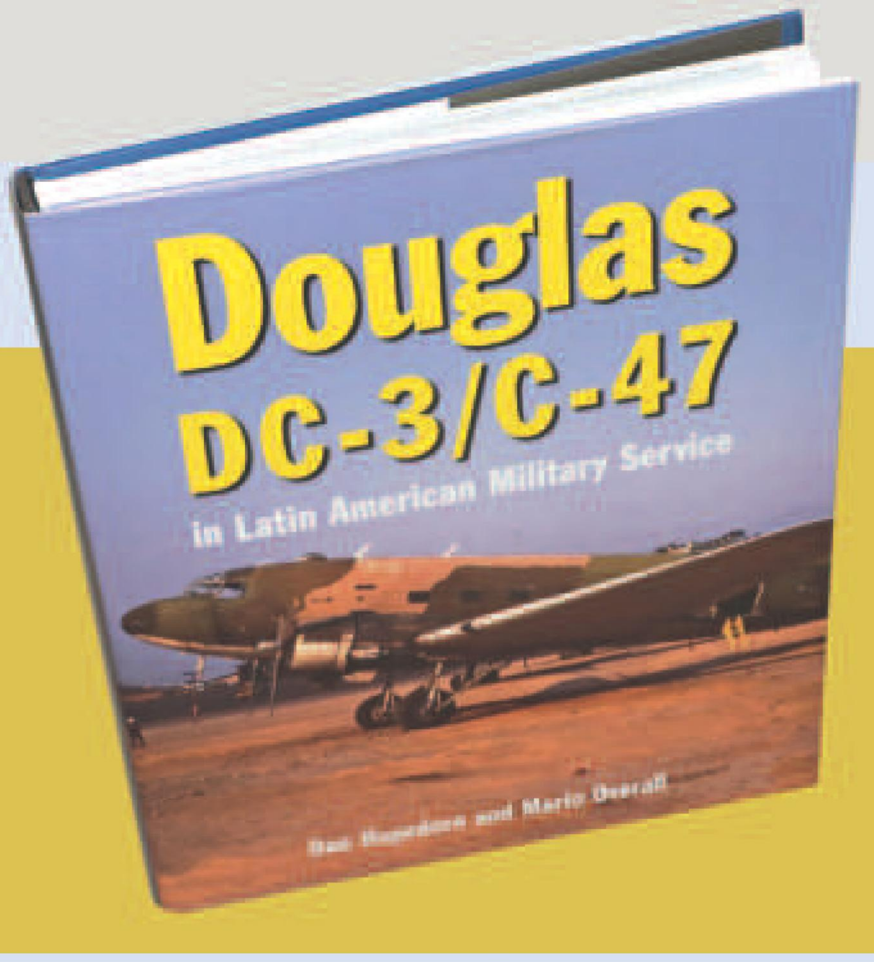
Chapter 6 is the popular Building a Selection for those looking for more in-depth kit reviews. Kits from 1:72, 1:48 and 1:32 are featured from Airfix, Tamiya, Eduard, Revell and the 1:48 Halberd Models conversion set to make a Cavalier Mustang from the Eduard kit. Each build takes us through the kit from start to finish, with good build photos, excellent descriptive copy and a fair and unbiased verdict at the end.

Chapter 7, Building a Collection guides us through the subtle and not so subtle changes from the XP-51D-NA through to the TF-51D Mustang T Mk. 2. There is 22 pages with two or three diagrams per page. We can see how, with some simple additions, it is possible to change one version to another.

Chapter 8 is the one that many Mustang kit builders will find invaluable where instructions are not clear enough or where extra detail is to be added. Mustangs were built in large numbers and many are still airworthy in private hands. These undergo restoration and maintenance, so information and photos of Mustang innards are much more accessible than for many WWII aircraft. The around 50 pages in this chapter is covered with photos and diagrams of all areas in and around the Mustang. Many old maintenance diagrams show how systems such as fuel and oil plumbing route around the aircraft and how the gun sight and radios work for example. Diagrams showing the radios will help those who wish to add more wiring to that provided on the kit parts in this highly visible area.

The usual appendix section ends the book and begins with long lists of kits and accessories. Lists of kits are separated into scale sets. Even the list of 1:32 kits runs to more than 50 kits, there are even seven listed under 1:24 scale. While the list is as comprehensive as possible, the author acknowledges that fact that there may be the odd one missing. We wonder who has the time or inclination to go through the list to check. Lists of masks and accessories runs to six pages and decal lists cover nine pages. Inside the back cover is a set of excellent eight A4 pages of 1:48 line drawings

Congratulations to the Valliant Wings team for producing another excellent profile. Thanks again to Valiant Wings for supplying their latest title for review. See the Valiant Wings web site: valiant-wings.co.uk for ordering and availability or visit your favourite specialist book traders such as Avid Reader/ Bookworld Wholesale (bookworld-ws.co.uk). Hannants also stock Valiant Wings titles.



CRECY

Douglas DC-3/C-47 in Latin American Military Service

crecy.co.uk

Before we look at the Crécy Publications we have for review we will add a short note. Crécy produce books with an emphasis on copy, taking in depth looks at the subject being covered. While modellers will find much reference in the form of photos and maybe diagrams, the books are not produced as pure modelling reference such as the Valiant Wings Mustang book reviewed this month. Crécy's book are produced to a high standard and will provide hours of fascinating reading when modellers are taking a break from sticking plastic parts together.

- By Dan Hagedorn and Mario Overall
- Published by Crécy Publishing Ltd
- Guide Price £27.95
- ISBN 978-1-91080-947-1
- 344pp hardback, 290 x 225mm

It is an amazing fact that an aircraft that first flew in 1935 is still not an uncommon sight. Some are preserved as vintage aircraft but there is still a number that are in regular workhorse use. They may be in their original condition with their radial engines and others having been radically modernised with up-to-date instrumentation and turbo-prop engines.

This book tells some of that story but taking a close look at the Dakotas that served in Latin America from WWII to the present day. As well as the copy, this book is illustrated with hundreds of photos, the majority of which are in colour.

The chapters commence with one on DC-3s and C-47s operated in South America by the American forces. These performed a variety of task from VIP transport to carrying out general cargo transportation and some secret and covert work. Each chapter begins with an overview of Dakota activity and is peppered with some fascinating information and anecdotes told by past air and ground crew veterans. Most remarkable of all are the lists of airframes and a short history of each aircraft and its service life, passing from unit to unit or country to country. There are a few where serials have been changed during the life of the aircraft so keeping an accurate track of a particular aircraft near impossible. Researching such detail must have been a mammoth task.

Having moved on from the Dakotas in the hands of US forces, each Latin American country is covered in alpha-order, starting with Argentina and finishing with Venezuela, twenty nations in all. We see that some airframes had interesting lives, being in accidents several times and then restored to service. Some poorer countries had little choice but to get the most out of the aircraft they owned. Others would push aircraft that had been in accidents out of the way and use them as sources of spare parts. Columbia, a country with a 'colourful' reputation would convert some C-47s into gunships, similar to those used by the

THE

Tunis, May 1943.

BRIAN EATON AND DESERT AIR FORCE

B

World War Two - Early War Service

1:

2:

tribesmen smuggled him past the Germans and back to his airfield. Two days later, his P-40 was hit by fire from an Me 109 that dived at him from out of the sun. He was able to glide back to base, 80 miles (130 km) away, but on arriving found that it was under attack by German bombers. He decided he had no other option than to land the damaged plane among the exploding bombs, and managed to do so without mishap. His series of narrow escapes engendered a spirit of fatalism, and a habit of keeping his emotions severely in check while on duty: "I just couldn't see myself living when so many were dying. It was something which, at the time, didn't bear much dwelling on."

Squadron and Wing Command

Despite his early setbacks in combat, Eaton soon rose to command No. 3 Squadron, taking over from Squadron Leader Bobby Gibbes on 21 April 1943. He led the unit as it relocated to Malta the following month, in preparation for the Allied invasion of Sicily.

Illness forced him to hand over command in June–July, but he returned to take charge of the squadron in August as it continued to fly escort and interdiction missions in Sicily with other units of No. 239 Wing RAF.

His brother Roger, a flight sergeant serving with the RAF, was killed in a Wellington bomber raid during the campaign.

On 3 September, No. 3 Squadron took part in the opening day of the Allied invasion of Italy, supporting the British XIII Corps as it moved inland after landing at Calabria.

Enemy air resistance remained light and worthwhile ground targets few as the campaign progressed but, on 24 October, Eaton led an attack against German shipping off the Yugoslav coast that left a merchant ship and two barges on fire. He repeated the exercise on 7 November, when the squadron scored hits on vessels in two separate raids in the harbour at Split. On 19 November, when the rest of No. 239 Wing was unable to complete any missions due to adverse weather, Eaton found a hole in the clouds and led eight Kittyhawks in a successful attack on Opi in central Italy.

He was promoted to temporary wing commander on 1 December. On 14 December, he was awarded the Distinguished Flying Cross for pressing home a night attack on Axis armour at Termoli. The citation was promulgated in the London Gazette:

One evening in October, 1943, this officer led his squadron in an attack on a strong enemy force, equipped with tanks, which were attacking our troops near Termoli. In spite of intense antiaircraft fire, Squadron Leader Eaton led his formation in at a low level and pressed home an attack which completely disrupted the enemy's forces. In this spirited action, Squadron Leader Eaton displayed inspiring leadership, great courage and tenacity.

On 16 February 1944, the day after the contentious destruction of Monte Cassino, Eaton took No. 3 Squadron through a break in the bad weather to attack the ruined monastery, the only one of No. 239 Wing's units to successfully bomb its target that day. He handed over command of No. 3 Squadron later that month, and was transferred to No. 1 Mobile Operations Room Unit as forward air controller for the final assault on Monte Cassino. The run of luck that Eaton experienced in his first weeks of air combat in Tunisia continued on the ground in Italy. He survived three months of constant artillery fire, including an occasion when a shell exploded directly above his observation post, striking down a British officer standing next to him. He also came under machine-gun fire when he took a wrong turn one day and drove into the German lines, but again escaped unhurt.

He was awarded the Distinguished Service Order on 7 April, in recognition of his leadership of No. 3 Squadron in North Africa, Malta, Sicily and Italy.

Raised to acting group captain, Eaton was given command of No. 239 Wing on 3 August 1944, taking responsibility for No. 3 Squadron and No. 450 Squadron RAAF, No. 112 Squadron and No. 260 Squadron RAF, No. 5 Squadron of the South African Air Force, and No. 250 Squadron of the Royal Rhodesian Air Force.

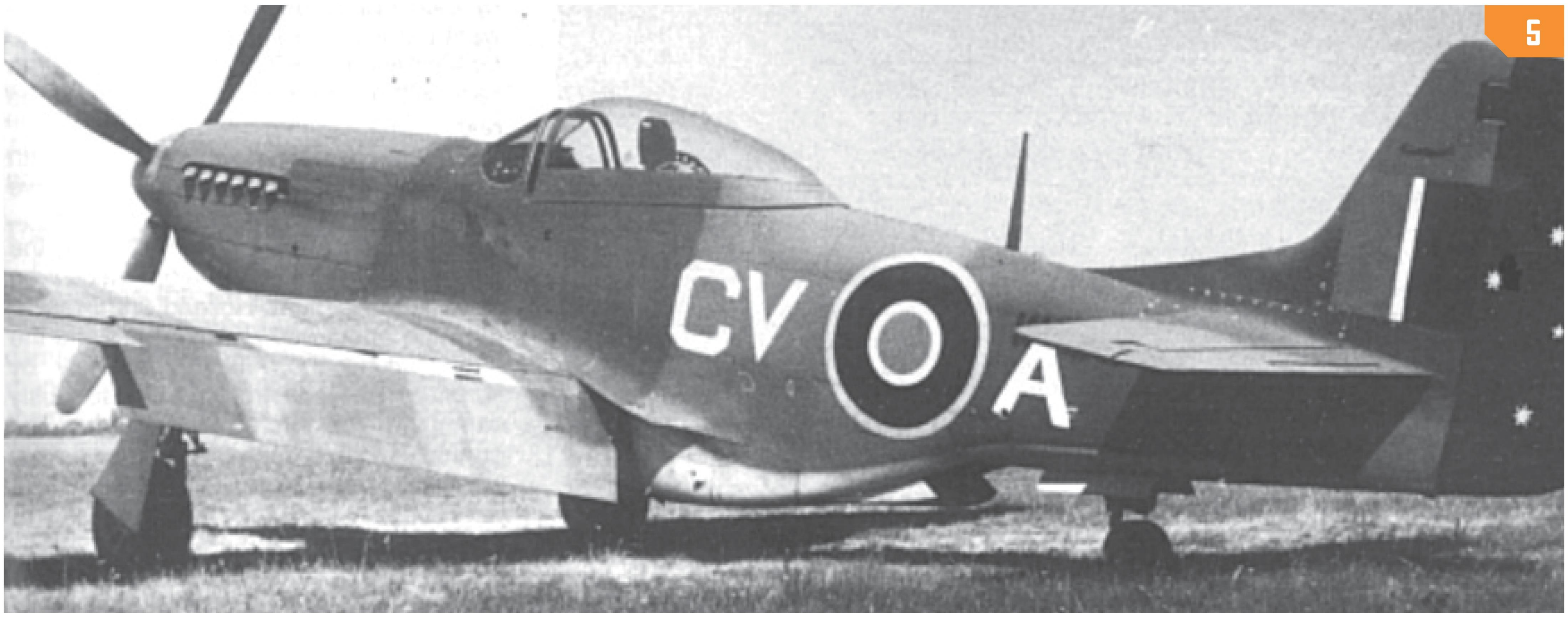
Credited with leading "many outstanding raids", he was known to his staff as "The Boss", and often flew twice a day with a different squadron on each mission; when his superiors found out how many sorties he was personally undertaking and ordered him to cut back, he simply ceased recording his flying hours. The wing's two RAF squadrons had already re-equipped with P-51 Mustangs when Eaton took over; No. 5 converted in September and No. 3 in November. As well as supporting the Eighth Army in Italy, the Mustang units carried out missions in Yugoslavia in concert with the Balkan Air Force, prior to Axis forces surrendering on 2 May.

Eaton was unofficially credited with shooting down as many as seven enemy aircraft during the Mediterranean campaigns, but was never listed among Australian flying aces. Many of the missions that he undertook with No. 3 Squadron and in command of No. 239 Wing were ground attack or anti-shipping sorties, rather than air-to-air combat. He was also known as a leader who, when opportunities did arise to engage other aircraft, would attempt to manoeuvre his rookie pilots into position to make a "kill", rather than take the shot himself. On 12 June, he was awarded a Bar to his Distinguished Service Order for "Outstanding skill and leadership against heavy odds".

His war service also earned him the US Silver Star, permission to wear it being gazetted on 14 June 1946.

Text adapted from Wikipedia https://en.wikipedia.org/wiki/Brian_Eaton ■

Wing Commander Brian Eaton, Malta, 1952.



3: Western Desert, Cyrenaica, Libya. 28 October 1942. A Curtiss P-40 Kittyhawk fighter aircraft, code CV-R, serial no. FR24, of No. 3 Squadron RAAF taxies across the airfield before taking off on a sortie. Only a short time before fitters and electricians had begun working upon the engine in their non-stop tour of duty. 4: A bombed up Mustang Mk.III from 3 Squadron RAAF. 5: 3 Squadron eventually converted to the Mustang Mk.IV, equivalent to the P-51D.

DE HAVILLAND CHIPMUNK

ALAN FIRBANK TREATS US TO A VISUAL FEAST WITH PHOTOS OF DE HAVILLAND CHIPMUNKS IN ACTION AT AIRSHOWS BETWEEN 2009 AND 2018.

The de Havilland Canada DHC-1 Chipmunk is a tandem, two-seat, single-engine primary trainer aircraft designed and developed by Canadian aircraft manufacturer de Havilland Canada. It was developed shortly after the Second World War and sold in large numbers during the immediate post-war years, being typically employed as a replacement for the de Havilland Tiger Moth biplane.

The Chipmunk was the first post-war aviation project conducted by de Havilland Canada. It took its maiden flight on 22 May 1946 and was introduced to operational service that same year.

During the late 1940s and 1950s, the Chipmunk was procured in large numbers by military air services such as the Royal Canadian Air Force (RCAF), Royal Air Force (RAF), and several other nations' air forces, where it was often utilised as their standard primary trainer aircraft. The type produced under licence by de Havilland in the United Kingdom, who would produce the vast majority of Chipmunks, as well as by OGMA (Oficinas Gerais de Material Aeronáutico) in Portugal.

The type was slowly phased out of service beginning in the late 1950s, although in the ab initio elementary training role, this did not happen in the Royal Air Force until 1996, when it was replaced by the Scottish Aviation Bulldog.

Many Chipmunks that had been in military use were sold to civilians, either to private owners or to companies, where they were typically used for a variety of purposes, often involving the type's excellent flying characteristics and its capability for aerobatic manoeuvres. More than 70 years after the type having first entered service, hundreds of Chipmunks remain airworthy and are in operation around the world.

The Portuguese Air Force still operates six Chipmunks, which serve with Esquadra 802, as of 2018.*

* Historical text courtesy of Wikipedia https://en.wikipedia.org/wiki/De_Havilland_Canada_DHC-1_Chipmunk

REFERENCE GALLERY – DE HAVILLAND CHIPMUNK

FINAL THOUGHTS

EXERCISE SOARING FALCON - QATAR

THREE RAF Typhoons have flown in the Qatar National Day fly past over Doha today alongside aircraft from the Qatar Emiri Air Force (QEAF), celebrating 50 years of official diplomatic relations between the UK and Qatar.

The celebrations in the nation's capital conclude a busy exercise season in Qatar for the RAF, in which two joint RAF & QEAF exercises have taken place since late November.

12 Squadron, the joint RAF-QEAF Typhoon Squadron, has been participating in Exercise Fox Defender in Doha since 28 November alongside the QEAF's Rafale and Mirage squadrons. More than 120 personnel deployed to Qatar, with pilots and groundcrew from both nations working together in a range of air-to-air and ground-to-air training serials. The exercise enhances the QEAF's operational capability ahead of receiving its own Typhoon aircraft in 2022.

Wing Commander Chris Wright, RAF Officer Commanding 12 Sqn, said: 'Exercise Fox Defender has allowed everyone who has deployed as part of, and in support of, the Joint Squadron to focus more closely on the challenges that lie ahead for our deployment here next year, while also allowing us to hone our skills, and those of the wider Qatari and UK Armed Forces, in fantastic weather conditions that would certainly not be available in the UK at this time of year!' ■

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Qatari Mirage Pilots and technicians, prepare the jets in order to join the Typhoon in a training sortie during EX FOX DEFENDER. FOUR Typhoons from No. 12 Squadron have arrived in Qatar for Exercise Fox Defender.

Qatari Mirage, takes off in order to join the Typhoon in a training sortie during EX FOX DEFENDER. FOUR Typhoons from No. 12 Squadron have arrived in Qatar for Exercise Fox Defender.

A 12 Sqn Typhoon refuels from an RAF Voyager during Ex SOARING FALCON. The Ex takes place from 1-18 December in Qatar during which an RAF Voyager trains alongside 12 Sqn and QEAF fast jets. The exercise is the first deployment of the new Qatar AAR Service, an agreement between the UK and Qatar for occasional, short AAR deployments to Qatar. The Voyager deployments will provide a valuable training opportunity for both air forces; enhancing their interoperability with other nations.

TRANSFER LIST

XTRADECAL

www.hannants.co.uk

DE HAVILLAND CHIPMUNK IN CIVIL HANDS 1:48 SCALE ITEM NO. X48226

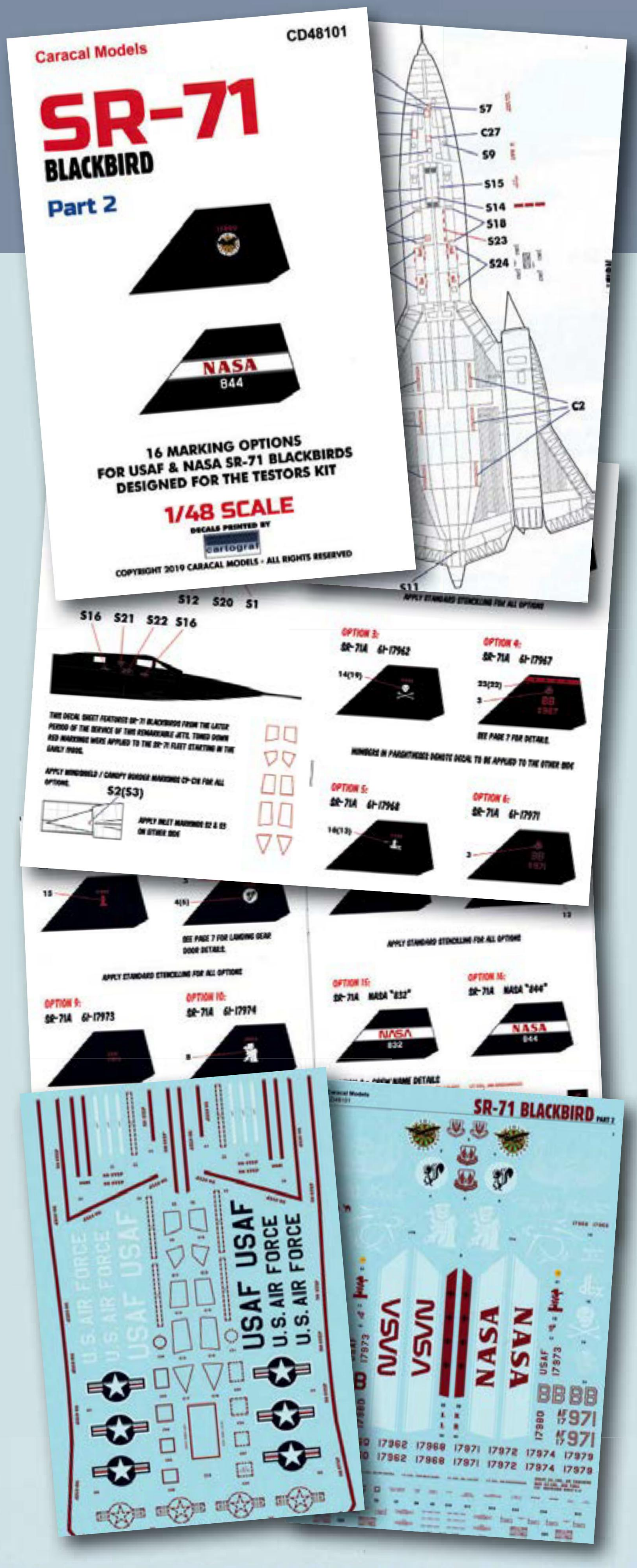
Following the retirement from military service it was inevitable that many Chippies would be bought by civilian pilots. The limiting factor was that the Chipmunk could only carry the pilot and one passenger but they are great fun, fully aerobatic and cheap to run. We will often see examples at air shows whether performers or visitors. Good that Xtradecal is providing half a dozen examples as an alternative to their military schemes.

01 Chipmunk 22, G-BCPU seen at Turweston in March 2012. The scheme on this Chipmunk is a tribute to British Airways with tail and wing tip markings similar to those on BA aircraft. Most of the aircraft is finished in Gloss White with the lower fuselage in Royal Blue and Royal Blue and Red on the top of the tail and wing tips.
02 Chipmunk T.10, G-BXGL seen at Bournemouth Airport in June 2012. Most of the airframe is painted Gloss Silver with a Gloss White upper fuselage and attractive Dark Blue tail markings and a cheat line between the Dark Blue and Gloss White. The old BA Speedbird logo appears on the tail.
03 Chipmunk T.10, G-AOTR when seen at Compton Abbas Airfield in August 2016. Most of this Chipmunk is painted Gloss Silver with the rear upper fuselage aft of the cockpit painted Gloss Crimson Red and a Crimson eagle painted on the tail fin.
04 Chipmunk 22(Mod), G-BBNB at Schiphol Airport in August 1976. Much of the airframe is in polished bare metal with Gloss Red on most of the wings, tail planes, rudder and front of the engine.
05 Chipmunk 22, D-ELLY as seen at Schoenefeld, Berlin in May 2006. The scheme was overall Gloss Silver with Yellow training bands on the wings and around the fuselage and some Lufthansa-style markings on the tail fin.
06 Chipmunk 22, D-ELLY, at this time, thirteen years later in 2019 in QUAX Historical Flight markings at Flugplatz Bienenfarm in Germany. This German registered Chipmunk was still in the same colour scheme as above but with the Lufthansa-style markings removed and the QUAX logo on both sides of the fuselage.

CARACAL MODELS

hannants.co.uk

LOCKHEED SR-71 BLACKBIRD – PART 2
1:48 SCALE ITEM NO. CD48101



As can be seen from the heading, this set for review here is half of a double issue. Part 1 covers Blackbirds in the earlier years of service and this sheet provides later schemes. About half a dozen airframes appear on sets 1 and 2 but with different markings, applied at different times. It is a shame we are not given dates with the schemes on the instructions.

This set of sixteen markings arrives on two A5-sized sheets and one small sheet carrying some white markings. Both sets 1 and 2 are reissues, originally designed to fit the aged Testors kit. We don't see any reason why, with maybe the odd small adjustment, these will not apply equally well to the recent Revell kit. Having compared the tail fins, not yet added to the progressing kit build, the NASA insignia fit properly and if the long red NO STEP demarcation lines that run along the upper fuselage needs adjusting there are some spare red lines supplied on the decal sheet. One sheet is covered with stencilling items as is one third of the main sheet. Pages 2 and 3 of the 8pp instructions book shows where all the stencilling items are placed and as the variable markings apply mainly to the tail fins, the following pages mainly show only tails. Here are the Blackbirds provided in Part 2:

01 SR-71A, 61-17958 with the White Habu snake on the tail.
02 SR-71A, 61-17960 with a White Shark in outline on the tails.
03 SR-71A, 61-17962 with the skull and crossbones on the tails.
04 SR-71A, 61-17967 with the Beale Air Base, BB and the aircraft's numbers on the tails.
05 SR-71A, 61-17968 with dbx characters on the tails.
06 SR-71A, 61-17971 again with BB and the bureau number on the tails.
07 SR-71A, 61-17968 with a Red Figure 1 with a snake coiled around it on the tails.
08 SR-71A, 61-17972 with the familiar skunkworks badge on the tails with the aircraft's number and Air Combat Command badge.
09 SR-71A, 61-17973 with just the aircraft's number on the tails.
10 SR-71A, 61-17974 with a White cartoon character holding a figure 1 on the tails.
11 SR-71A, 61-17979 with a superb Night Hawk line illustration on the tails.
12 SR-71A, 61-17980 with a badge showing a Blackbird flying over a dart board on the tails.
13 SR-71A, 61-17971 with a small NASA logo on the tail fins.
14 SR-71B '831' with a larger NASA logo on a White band on the tails.
15 SR-71A '832' with the same NASA logo as No. 14 on the tails.
16 SR-71A '844' with the older style of NASA logo on the tails.

The above decal sets were sourced from Hannants of Lowestoft. See their website: hannants.co.uk for details and ordering.

Alan Firbank
February 2022

OV-10 BRONCO CLOSE-UP

SPENCER POLLARD TAKES A WALK AROUND A COLOURFUL BAVARIAN OV-10 BRONCO

The North American Rockwell OV-10 Bronco is an American twin-turboprop light attack and observation aircraft.

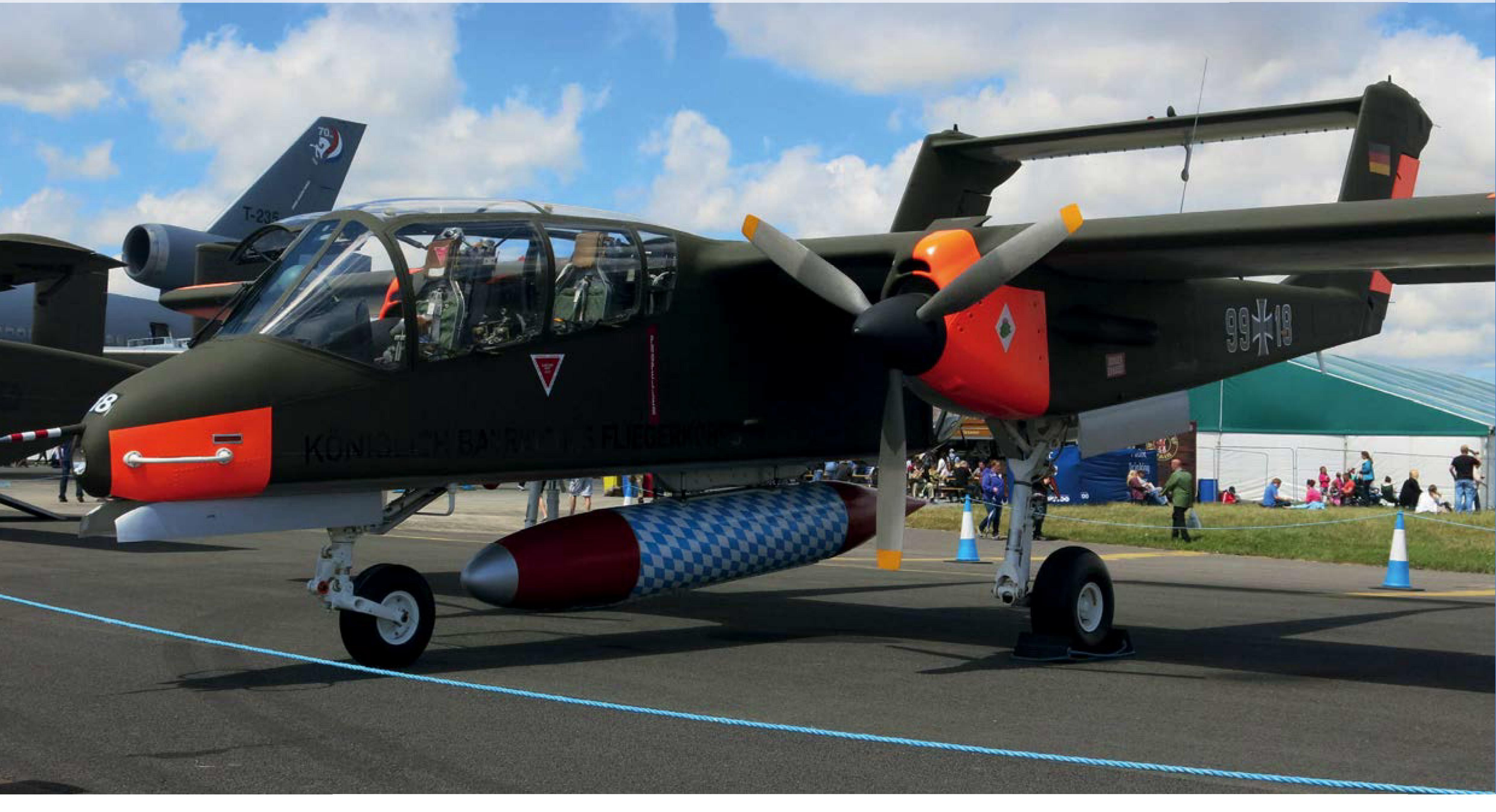
It was developed in the 1960s as a special aircraft for counter-insurgency (COIN) combat, and one of its primary missions was as a forward air control (FAC) aircraft. It can carry up to 3,200 lb of external munitions, internal loads such as paratroopers or stretchers, and loiter for three or more hours.

The original concept was for a rugged, simple, close air support aircraft integrated with forward ground operations. At the time, the U.S. Army was still experimenting with armed helicopters, and the U.S. Air Force was not interested in close air support.

The concept aircraft was to operate from expedient forward air bases using roads as runways. Speed was to be from very slow to medium subsonic, with much longer loiter times than a pure jet. Efficient turboprop engines would give better performance than piston engines. Weapons were to be mounted on the centreline to get efficient unranged aiming. The inventors favoured strafing weapons such as self-loading recoilless rifles, which could deliver aimed explosive shells with less recoil than cannons, and a lower per-round weight than rockets. The airframe was to be designed to avoid the back blast.

Design

The OV-10 has a central nacelle containing pilots and cargo, and twin booms containing

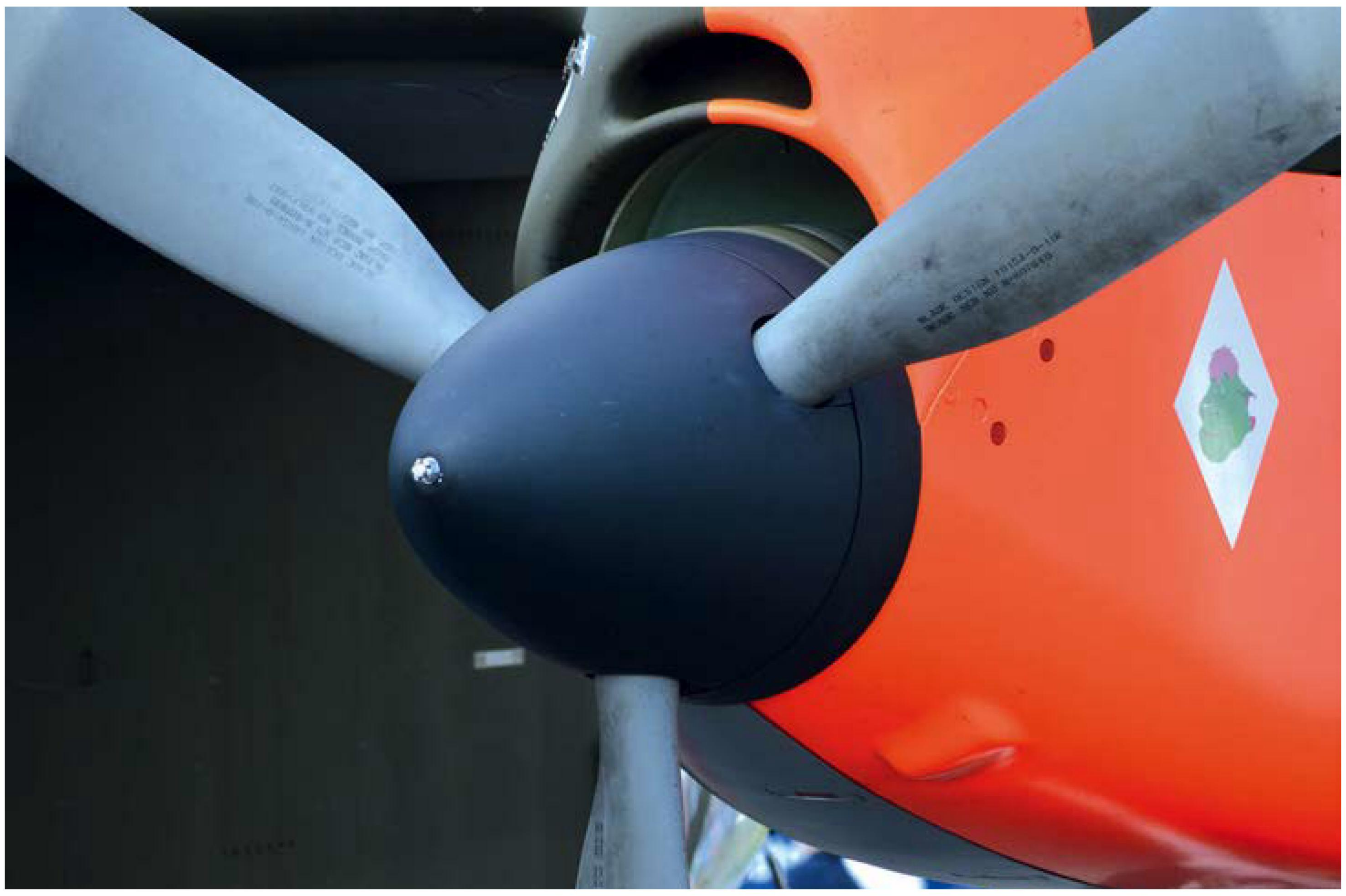


twin turboprop engines. The visually distinctive feature of the aircraft is the combination of the twin booms, with the horizontal stabilizer that connects them.

The aircraft's design supported effective operations from forward bases. The OV-10 can perform short take-offs and landings, including on aircraft carriers and large-deck amphibious assault ships without using catapults or arresting wires. Further, the OV-10 was designed to take off and land on unimproved sites. Repairs could be made with ordinary tools. No ground equipment was required to start the engines. If necessary, the engines could operate on high-octane automobile fuel with only a slight loss of power.

The aircraft had responsive handling and could fly for 5 1/2 hours with external fuel tanks. The cockpit had extremely good visibility for a tandem pilot and co-pilot, provided by a wrap-around greenhouse that was wider than the fuselage. North American Rockwell custom ejection seats were standard, with many successful ejections during service. With the second seat removed, it can carry 3,200 pounds of cargo, five paratroopers, or two litter patients and an attendant. Empty weight was 6,969 pounds. Normal operating fuelled weight with two crew was 9,908 pounds. Maximum take-off weight was 14,446 pounds.

The bottom of the fuselage bore sponsons or "stub wings" that improved flight performance by decreasing aerodynamic drag underneath the fuselage. The sponsons were mounted horizontally on the prototype. Testing caused them to be redesigned for production aircraft; the downward angle of the sponsons on production models ensured that stores carried on the sponsons jettisoned cleanly. Normally, four 7.62 mm M60C machine guns were carried on the sponsons with the M60Cs accessed through a large forward-opening hatch on the top of each sponson. The sponsons also had four racks to carry bombs, pods, or fuel. The wings outboard of the engines contain two additional racks, one ▶



per side.

Racked armament in the Vietnam War was usually seven-shot 2.75 in rocket pods with white phosphorus marker rounds or high-explosive rockets, or 5 in four-shot Zuni rocket pods. Bombs, ADSIDS air-delivered/para-dropped unattended seismic sensors, Mk-6 battlefield illumination flares, and other stores were also carried.

Operational experience showed some weaknesses in the OV-10's design. It was significantly underpowered, which contributed to crashes in Vietnam in sloping terrain because the pilots could not climb fast enough. While specifications state that the aircraft could reach 26,000 feet, in Vietnam the aircraft could

reach only 18,000 feet. Also, no OV-10 pilot survived ditching the aircraft.

Operational History

The OV-10 served in the U.S. Air Force, U.S. Marine Corps, and U.S. Navy, as well as in the service of a number of other countries.

A total of 81 OV-10 Broncos were ultimately lost to all causes during the course of the Vietnam War, with the Air Force losing 64, the Navy 7, and the Marines 10.

* Body text courtesy of Wikipedia https://en.wikipedia.org/wiki/North_American_Rockwell_OV-10_Bronco ■

UK CONTRIBUTION TO NATO UPLIFT BOLSTERS DEFENCES IN EASTERN EUROPE

UK's substantial contribution to NATO's uplift in Eastern Europe is strengthening the Alliance's defences on land, sea and air, amid ongoing tensions with Russia.

Defence Secretary Ben Wallace is in Brussels today and tomorrow to discuss the UK offer and the situation in Ukraine with NATO Allies.

The UK is doubling the number of personnel in Estonia and sending additional equipment, including tanks and armoured fighting vehicles. These troops and equipment will begin to move to Estonia today.

The Royal Welsh battlegroup, which includes armoured vehicles and personnel, will leave Sennelager in Germany and bases in the UK and begin to arrive in Estonia during the coming week. Apache helicopters will soon be making their way to conduct exercises with our Allies and partners in Eastern Europe.

Four additional UK Typhoon jets have also landed in Cyprus and will shortly begin to patrol the skies with NATO Allies in Eastern Europe.

HMS Trent – a UK Warship – has already begun conducting patrols in the Eastern Mediterranean Sea alongside NATO Allies from Canada, Italy, Spain and Turkey.

HMS Diamond is preparing to set sail in the coming days for the Eastern Mediterranean and will join up with NATO allies.

The majority of the 350 Royal Marines of 45 Commando committed to Poland have already arrived. We have also put 1,000 more British personnel at readiness in the UK to support a humanitarian response, if needed.

Defence Secretary Ben Wallace said:

"Alongside our NATO Allies, we are deploying troops and assets on land, sea and air to bolster European defences in response to the build-up of Russian military forces on the border of Ukraine.

"NATO and our allies have been clear that an invasion of Ukraine will be met with severe consequences.

"De-escalation and diplomacy remain the only path out of this situation."

While in Brussels, the Defence Secretary held meetings with a number of NATO counterparts including the Quad, Turkey, Canada and Italy. Ministers discussed the ongoing Russian military build-up on the border with Ukraine and the international community's response.

The Defence Secretary impressed with his counterparts that Russia needed to match its actions to its words, and truly deescalate.

The UK is playing a leading role within NATO and shaping the international community's response to Russia.

The UK supplied Ukraine with light, anti-armour, defensive weapon systems as well as an additional defensive package of body armour, helmets and combat boots.

The UK is Europe's largest contributor to NATO. We have deployed more troops to NATO's Enhanced Forward Presence than any other Ally, and HMS Prince of Wales leads the Alliance's Maritime High Readiness Force.

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FIGHTERTOWN DECALS

http://www.fightertowndecals.com

This month we have two new 1:48 decal sheets from Fightertown Decals that could not be more different. The first one is an amazingly packed A4+ sized sheet, covered with decals for colourful aggressor aircraft with the US Navy and US Marine Corps. Some of the aircraft appear more than once in different colours.

The second is a small sheet with decals for Top Gun's Super Hornet Black Jets.

EXTREMELY ADVERSARIAL, A4/TA-4, F-5, F-16 NFWS, VF-126, VFC-13, VFC-111, 1:48 SCALE, ITEM NO. 48092

01 A-4F Skyhawk, 154183 '00' 'Double Nuts' with the US Navy's VF-126 in 1992. Rather than have '00' on the nose, we have a pair of nuts (as in nuts and bolts). A disruptive camouflage pattern in colours ranging from a light tan to dark green is applied overall.

02 A-4F Skyhawk, 155018 '24' with the US Navy's VF-126 in 1991. This Skyhawk is finished in a complex camouflage pattern on the upper surfaces made up of three shades of brown with overall light gray on the undersides.

03 TA-4F Skyhawk, 154631 '01' 'DUKE' with the US Navy's VF-126 in 1986. A pattern of light tan, dark brown and dark green is applied to the upper surface with medium gray undersides.

04 A-4F Skyhawk, 155064 '25' with the US Navy's VF-126 in 1992. Another complex camouflage pattern applied to the upper surfaces. In this case the colours are two grays and dark Aggressor Blue with light gray undersides.

05 A-4E Skyhawk, 150023 'Gray 56' with the US Marine Corps Top Gun in 1983. This Skyhawk is in a rather simpler two-colour camouflage pattern of gray and dark green with light gray undersides.

06 A-4E Skyhawk,150023 'Black 56' with the US Marine Corps Top Gun in 1985. Again, a simpler camouflage pattern on the upper surfaces made up of Dark Gull Gray and Air Superiority Blue with Light Ghost Gray under sides.

07 A-4E Skyhawk, 150023 'THE MIG' with the US Marine Corps Top Gun 1990-92. This Skyhawk appears at this time in an unusual scheme showing a MiG 19(?) shape applied to the upper and lower surfaces. The background Skyhawk is painted light gray with the MiG painted tan and dark brown on the upper surfaces and gray/blue undersides.

08 A-4F Skyhawk, 155036 'White 52' with the US Navy Top Gun in 1992. A pattern of gray and Aggressor Blue appears on the upper surfaces with light gray undersides.

09 A-4E Skyhawk, 151059 '32' with the US Navy's VF-126 in 1990. The camouflage scheme is a pattern of tan and brown on the upper surfaces with Light Ghost Gray undersides.

10 A-4E Skyhawk, 151059 '32' with US Navy's VF-126 in 1991. This is the same Skyhawk as above but with a new scheme. The undersides retained the same Light Ghost Gray but the pattern

on the upper surfaces changed to medium and dark brown.
11 A-4E Skyhawk, 149666 'Red 30' with the US Navy's VF-126 in 1987. Another complex camouflage pattern on the upper surfaces made up of tan, medium brown and dark green with gray undersides.
12 A-4E Skyhawk, 149666 'Red 30' with the US Navy's VF-126 in 1989-90. Again, the same aircraft as above but with an even more taxing camouflage pattern on the upper surfaces but in similar colours.
13 A-4E Skyhawk, 149990 '4' with the US Navy's NFWS in 1970. We have another pretty camouflage pattern of tan, green and brown on the upper surfaces with light gray undersides.
14 A-4E Skyhawk, 151095 'Black 55' as seen flown by Jester in the first Top Gun film in 1985. This Skyhawk carried a wrap around camouflage pattern made up of tan, dark brown and dark green with a choice of Top Gun badge on the tail fin, a regular size and a larger one as seen in the movie.
15 F-16N Fighting Falcon, 163269 '42' with the US Marine Corp's NFWS in 1987. The wrap around camouflage pattern is splinter-style dark green over a light gray background.
16 F-5N Tiger II, 761536 '02' 'Banana/Afghan Tiger/Bumblebee' with the US Navy's VFC-13. This Tiger has a camouflage pattern of sand, dark brown and dark green on the upper surface with Light Ghost Gray underside.
17 F-5N Tiger II, 761578 '13' with the US Navy's VFC-13. The finish is overall gloss black, a reminder of the 'MiG' in Top Gun going canopy to canopy with Maverick's Tomcat.
18 F-5E Tiger II, 761564 '01' with the US Navy's VFC-13. This is one of those schemes that takes no pity on modellers, a tiger scheme with dark gray stripes on a Dark Compass Gray background. No decals supplied for the wrap around striped pattern.
19 F-5E Tiger II, 730865 '01' with the US Navy's VFC-13. This one is not quite as bad as the last one but still taxing. Overall Air Superiority Blue with a complex Aggressor Blue pattern on the upper surfaces and lower fuselage.
20 F-5N Tiger II, 761591 '111' 'Su-35' with the US Navy's VFC-111 Sundowners. A camouflage pattern meant to replicate that on the Russian Su-35 is a splinter pattern of white, medium gray and dark gray with the Sundowners' sunburst on the rudder and shark's mouth on the nose.
21 F-5F Tiger II, 810834, '100' 'Siberian Tiger' with the US Navy's VFC-111 Sundowners. This is the only two seat Tiger in this set. The scheme is a pattern of Aggressor Gray outlined in black in places, on a white background on the upper surfaces and Light Ghost Grey undersides. A shark's mouth was planned to appear on the lower nose and the sunburst on the rudder but it appears the idea was scrapped. Fightertown include these markings should you wish to use them.
22 F-5N Tiger II, 761554, 'Ghost' with the US Navy's VFC-111 Sundowners. This is about the easiest scheme from the modeller's point of view. This jet appears in overall Sky Blue with a F-16 style application of Dark Blue, as used on US Navy Corsairs in WWII on the upper surfaces. Again, the proposed shark's mouth and sunburst didn't make it on to the aircraft.
23 F-5E Tiger II, 160792 '21' 'Shamu' with the US Navy's VFC-13 in 1998. This camouflage pattern is one of the simpler ones to apply, starting with overall light gray. Large areas of dark grey are applied to the upper surfaces and a similar pattern of medium gray applied to the undersides.

As mentioned at the top of the review, this sheet is jamb-packed with decals, you will need a fresh scalpel blade to cut out the tightly spaced items. Each set of markings arrive with a set of stars and bars and some stencilling items so all 23 can be produced from this sheet. The instructions are excellent, showing a four-view painting guide for the schemes with Federal Standard colour references given throughout. This set would make a great club project and display. Anyone up for the challenge?

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eduard

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BRAVO NOVEMBER

WE VISIT THE RAF MUSEUM COSFORD TO TAKE A CLOSER LOOK AT THEIR WONDERFUL NEW EXHIBIT, CHINOOK ZA718, 'BRAVO NOVEMBER'

The newest addition to the Royal Air Force Museum Midlands' collection of aircraft, is the RAF Chinook HC6A 'Bravo November' — perhaps the world's most famous example of this incredible machine. It was one of the original 30 Chinooks ordered by the RAF in 1978 and has been in service ever since, serving in every major conflict of the last 40 years. As a veteran of the Falklands, Iraq and Afghanistan, Bravo November has seen four of its pilots awarded the Distinguished Flying Cross (DFC) for actions whilst at the controls of the aircraft.

Bravo November departed RAF Odiham ►

The unmistakeable face of the Chinook, friend to countless service men and women throughout decades of conflict…

Those famous serial letters 'BN', Bravo November, letters that have been part of this aircraft's make-up, for 40 years.

A view through the side door reveals the padded interior sound-proofing. Even with this in place, I would imagine that the interior is a noisy place to be!

The windscreen wipers are complex affairs that are often simplified in miniature. This is how they look in reality.

The nose glazing reveals the huge amount of machinery that can be found around the lower instrument console and pedals.

Rotor head detail. Note the colour-coded bands that match up the arms of the head with their respective blades.

Wheel detail. Note tie-down hoop and the red creep marks across the hub and tyre.

Fixed to the sponson, you can find this structure that forms part of the chaff dispenser box.

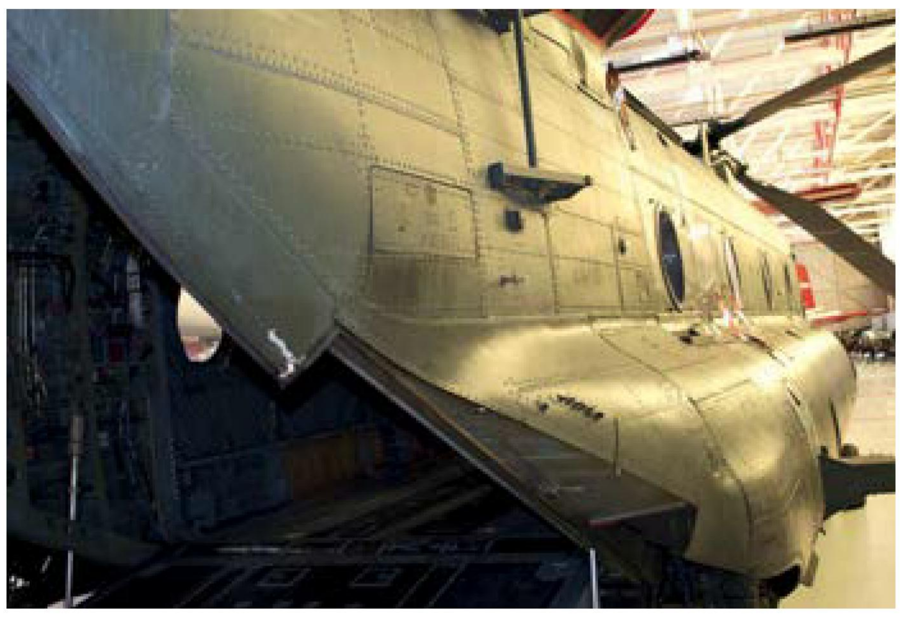
Various lumps and bumps decorate the rear fuselage, all forming part of the aircraft's defensive suite.

in Hampshire on the 16th of March this year, travelling by road on a low loader lorry to its home in Hanger 1 at Cosford. The Chinook is now on public display for the first time ahead of the nation's Falklands 40 anniversary celebrations that commenced on the 2nd of April.

Dr Peter Johnston, RAF Museum Head of Collections said:

"The Chinook, and in particular Bravo November is a significant addition to the RAF Museum's collection in the Midlands. As we look ahead to Falklands 40, Museum visitors will be able to appreciate the enormous efforts and sacrifices that were required for the campaign to be successful by seeing this most famous of airframes. Yet having also performed a variety of roles in worldwide operations since 1982, this highly decorated aircraft has been involved in major moments in British and global history, and carries further extraordinary stories of service, sacrifice, and heroism at home and abroad. The RAF Museum is delighted to

Engine nacelle. This one is empty, the rear opening being filled with a small rubber tyre!



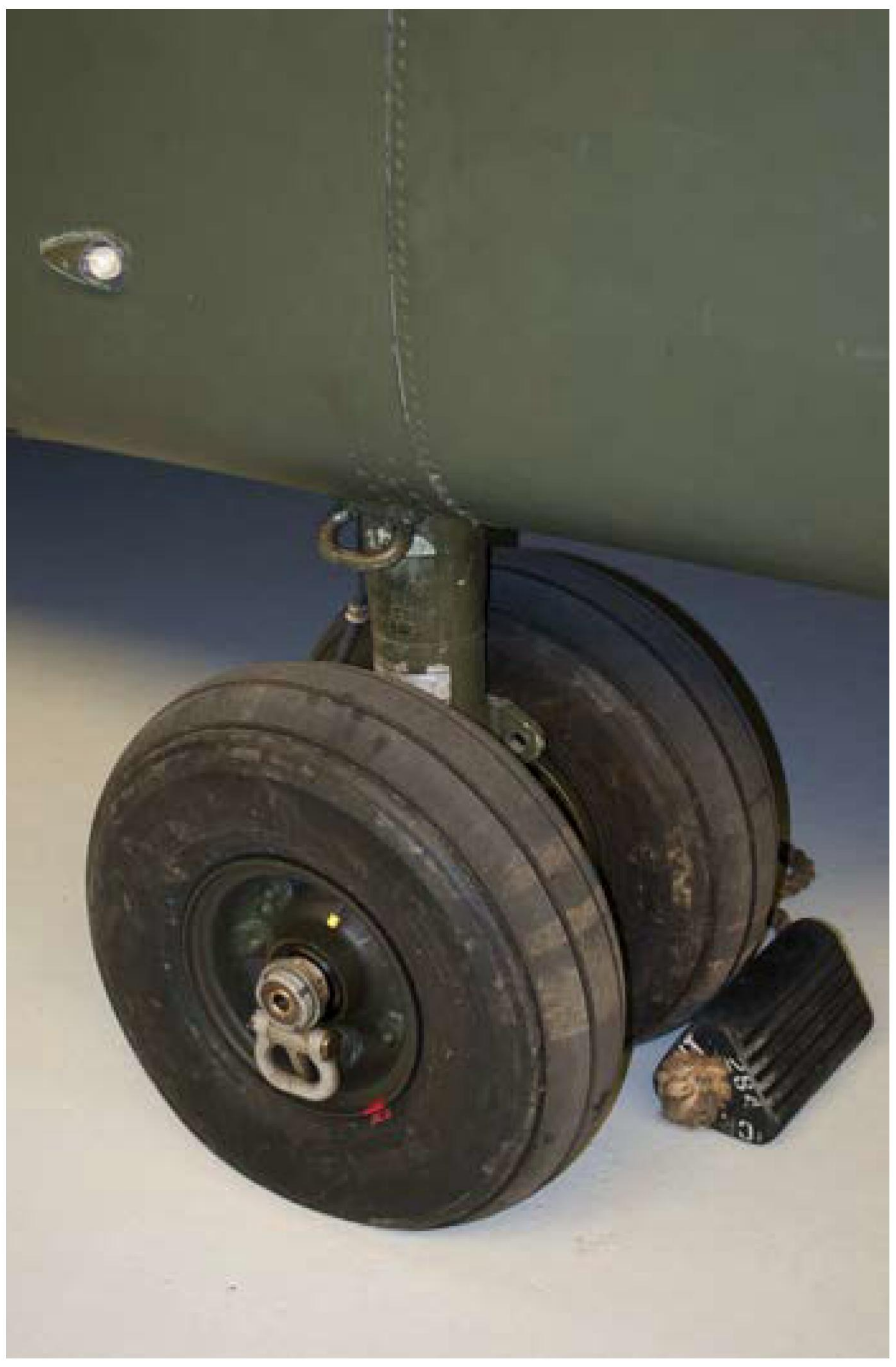
A look down the side of the fuselage reveals just how agricultural the design is, with row upon row of raised rivets.

The Chinook features a very distinct aerial that runs the length of the fuselage. Here's that aerial in detail. Note its back colour.

Though painted in an overall green colour, there are many different shades over the surface of this machine. Note the sombre nature of the toned-down markings.

The Cosford exhibition has the ramp down so you can see inside the cavernous load bay.

A further look inside the aircraft, reveals the grey interior colour and judicious use of sound-proofing. There are no seats within this machine, something that can be fitted inside a Chinook with ease.



The undercarriage with its dual wheels, in detail.

The area around the loading ramp features a ton of structural details and all manner of cables and wiring — perfect grist for the mill for any would-be super-detailer!

welcome Bravo November into our collection, ensuring an icon of British aviation is secured for future generations to enjoy." (Information via the RAF Museum)

Of course, living so close to the museum, it was not a great leap to take a closer look at this aircraft. Chatting to the staff on the day, they pointed out that the aircraft is not complete (it has no engines for a start), but work may be carried out to add to of the missing, less sensitive components. Even so, as it stands it bears testament to an amazing aircraft, one that has seen action in all of the major conflicts over the last 40 years and has survived to tell the tale! ■

F4U-1A CORSAIR AT PLANES OF FAME MUSEUM

THE EDITOR GETS UP AND PERSONAL WITH A CORSAIR UNDER RESTORATION AT THE PLANES OF FAME MUSEUM IN CHINO CALIFORNIA DURING 2004

The combat career of the F4U Corsair stretched longer than almost any other WWII fighter aircraft. The first of more than 12,000 Corsairs were produced in 1940, and the last of these bent wing birds were still doing battle above Central America nearly thirty years later.

The Vought Aircraft company had a strong association with the US Navy during the inter war decades, but their focus in the 1930s was observation aircraft, trainers and seaplanes.

In response to a US Navy specification issued in February 1938, Vought submitted two designs. With the second of these carrier-based fighter proposals, Vought adopted

This F4U-1A Corsair, on display at the Planes of Fame, is in flying condition.

Here are the inner landing flaps. Note the gap between the front of the flaps and the back of the wing. The cut-out in the inside flap is a step for the pilot. This feature was only introduced during the production run of the F4U-1D.

This is a view of the bottom of the starboard side outboard flap. The hinge moves the flap down and backwards, away from the main part of the wing.

The split elevator trim tabs and actuators may be clearly seen in this photograph.

The wing fold contains hydraulic and mechanical elements. Note that the wheels are more typical of late Corsairs than the F4U-1A.

The Corsair instrument panel was quite flat and relatively featureless except for the instruments themselves.

the simple strategy of building the smallest possible airframe around the most powerful available engine.

At the same time, Pratt & Whitney was developing the supercharged R-2800 radial engine. Radial engines had recently lost favour to the sleeker inline configuration, but the US Navy preferred the ruggedness and simplicity of the radial arrangement. Vought therefore designed their new V-166B around the Pratt & Whitney R-2800 powerplant.

The brute force of the R-2800 engine had to be absorbed by a correspondingly large propeller. With a diameter of 13’ 4”, the Hamilton Standard three-bladed propeller assembly was the largest fitted to a fighter aircraft to that date.

This imposing propeller needed very high ground clearance. Vought’s solution was to install an inverted gull wing. The main undercarriage was fitted to the lowest point of the wing, improving ground clearance for the propeller while still permitting robust landing gear – essential for carrier landings. This design also lowered the profile of the Corsair with the wings folded, and strengthened the join with the fuselage via its sturdy central spar.

The result was the sole prototype XF4U-1, which first flew on 29 May, 1940. The ruggedness of Vought’s design was proven at the end of that maiden flight when the aircraft flipped after a forced landing. Although the prototype was badly damaged, it was repaired and flew again within months. Indeed, before the end of 1940 the XF4U-1 became the first US fighter aircraft to exceed 400 mph in level flight.

Further development was required to iron out a number of undesirable flying and landing characteristics. In December 1942 the Corsair commenced carrier trials. Ongoing problems with poor pilot visibility on final approach and premature port wing stall disqualified the Corsair from US carrier operations at this time.

However, the first land based Corsair Marines squadron entered front line service in February 1943. The famous Jolly Rogers, VF-17, became the first US Navy Corsair unit to see action shortly after. The Corsair immediately demonstrated its superiority over Japanese fighters with an impressive kill ratio. The performance of the F4U also proved to be at least on equal footing with its US Army Air Force fighter counterparts, the P-47 and the P-51.

The Corsair was also adopted by the British Fleet Air Arm. Unlike the US Navy, Britain operated their Corsairs on carriers from their first sorties in March 1944. With their strikes

Here is an F4U4-B, originally built in 1944 and under restoration at the Yanks facility in Chino California at the time these photos were taken in 2004.

against the Tirpitz, the Fleet Air Arm was the only Corsair operator to face German forces.

US Navy Corsairs were eventually cleared for carrier use in April 1944, in time to deal with the Kamikaze threat later that year.

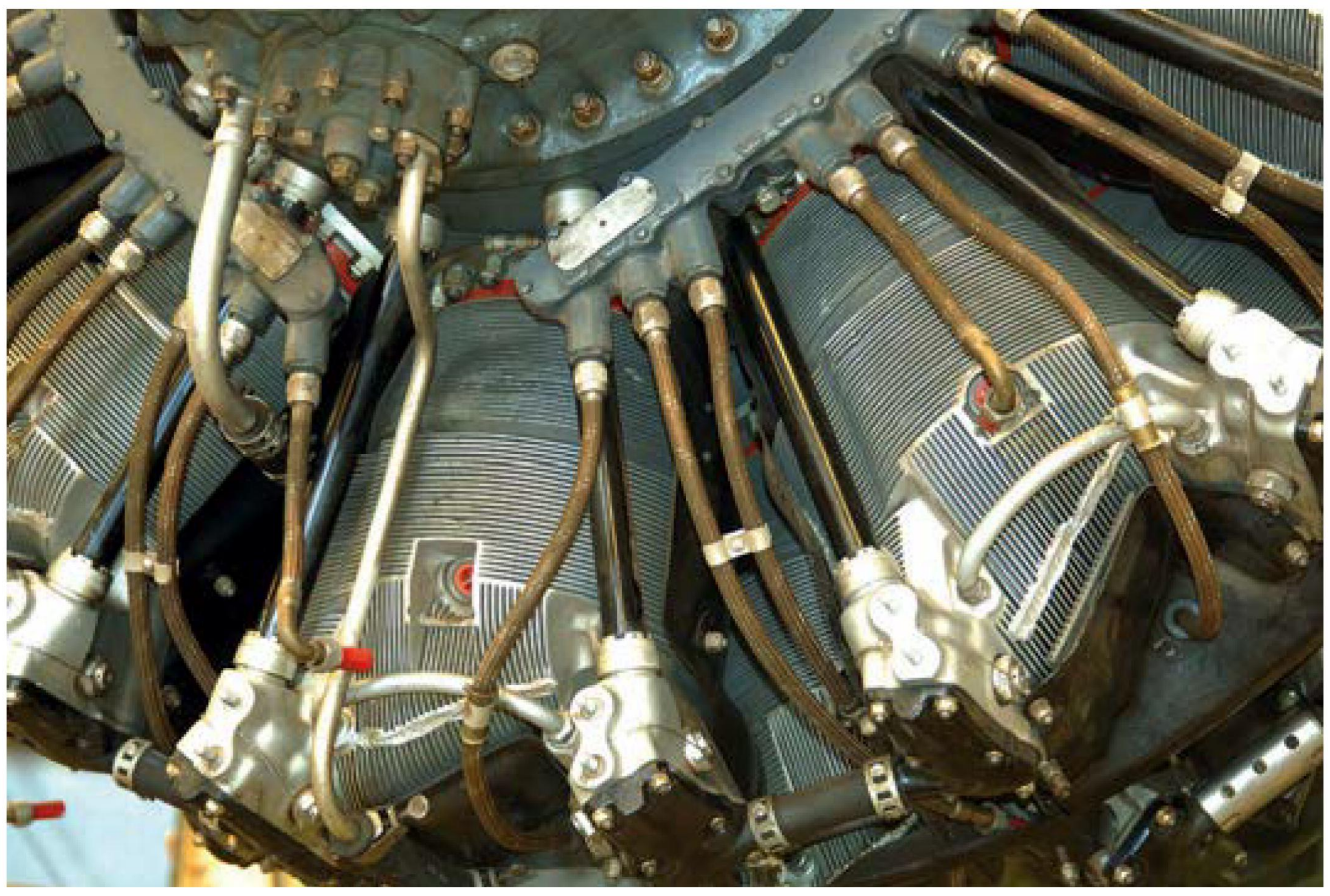
The Royal New Zealand Air Force was the third Corsair operator in the Pacific. 238 F4U-1As, 126 -1Ds and 60 FG-1Ds served with 13 RNZAF squadrons from May 1944.

Development of the Corsair continued throughout the Second World War and beyond. When most WWII fighters were being abandoned in the dawn of the new jet age, the Corsair was adapted to the times. Fitted with a more powerful version of the R-2800 engine and equipped for even heavier loads, the Corsair became a valuable close support asset during the Korean War. Its ruggedness, reliability and versatility made the Corsair ideal for the harsh conditions encountered on ship and shore.

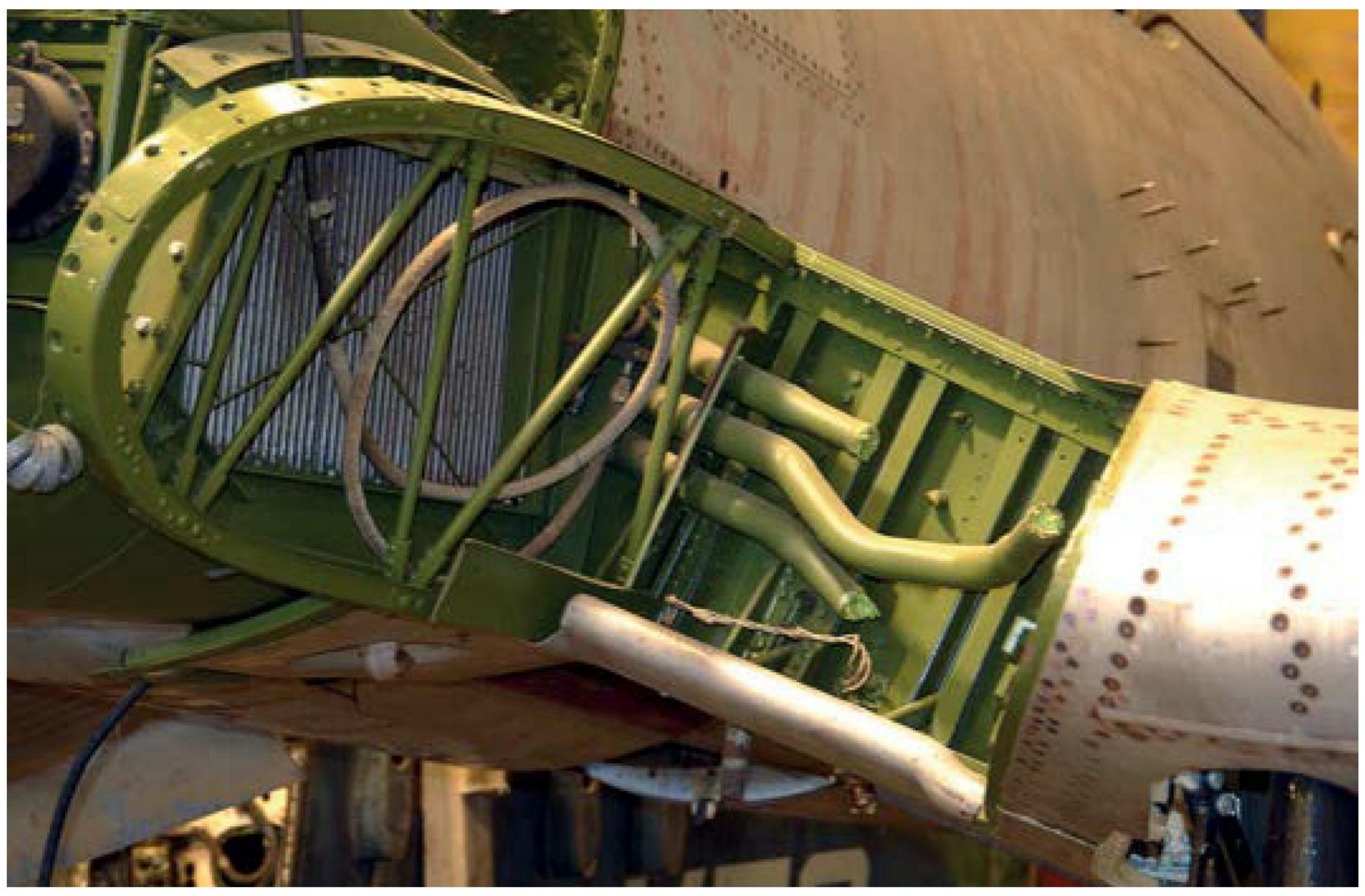
Even after the Korean War, the Corsair remained a front-line aircraft in a number of theatres. The French Navy operated the AU-1 and the F4U-7 in Indochina, Algeria and during the Suez crisis, while a handful of Latin American countries used Corsairs in air-to-air combat until the end of the 1960s.

The Pratt & Whitney R-2800 engine had an equally impressive record, with total production exceeding 125,000 between 1939 and 1960. ■

We are offered a unique, all-round view of the Pratt & Whitney R-2800 engine. Note the cylindrical reduction gear housing, characteristic of the late version R-2800. The splines on the end of the propeller shaft are also of interest.



Push rod tubes are painted in gloss black enamel, per specification, but these were sometimes seen either unpainted or in a silver finish. This view of the ignition leads running from the central harness to the cylinders is especially useful for modelers wishing to detail their engines.

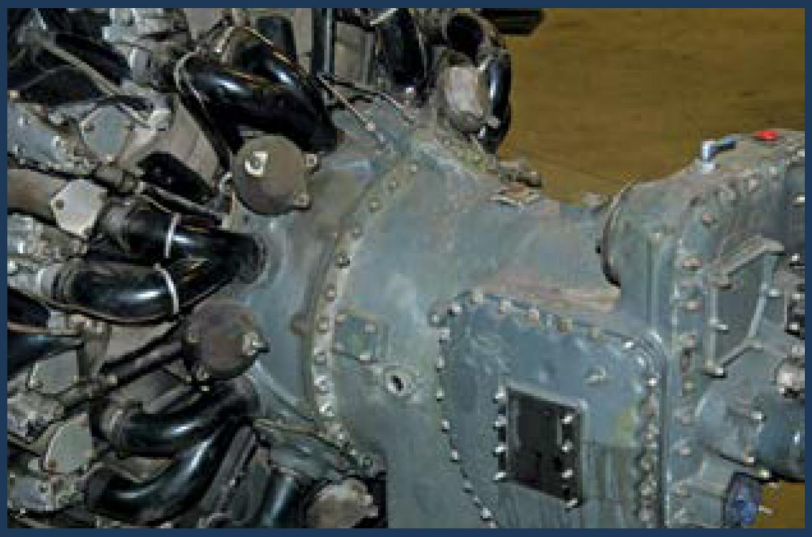


The bulk of the central spar may be appreciated in this view. The wing intakes would normally be fitted in this position.

Detail view of the spinner cap.

The complex retraction mechanism of the Corsair main undercarriage gear is on display here.

Unlike most American WWII fighter aircraft, the majority of the Corsair's fixed panels were spot welded to the airframe from the inside. This meant that rivets could not be seen on fixed panels. Note the lines of Salmon primer where the original paint has been stripped from the fuselage.



Rear of the engine including supercharger elements.

Folded wing.

Close-up view of the port side wing fold.

The triple exhaust and open lower cowl flaps.

The triple exhaust and open lower cowl flaps.

FINAL THOUGHTS

40 YEARS SINCE ARGENTINA'S INVASION OF THE FALKLAND ISLANDS

The Falklands Conflict (Falklands War) began after scrap metal merchants landed on South Georgia on March 19th, 1982, and raised the Argentine flag.

After Britain called for an emergency meeting of the UN Security Council on 1st April the Argentine military junta launched a full-scale invasion of the 'Las Malvinas' on April 2nd, 1982.

The UK responded by assembling a task force of 28,000 soldiers from the Army, Navy, and RAF, the first wave of the Navy task force setting sail from the south coast UK ports within 4 days.

Soldier Staff Photographer Paul Haley joined the QE2 at Southampton on 12 May and landed off the Canberra via a Landing Craft onto the San Carlos beach head on June 2nd.1982.

From there he tabbed and hitched lifts in helicopters following 5 Brigade across East Falkland arriving in Stanley ahead of the CO of 22 SAS to negotiate the Argentinian surrender on 14th June 1982. ■

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NATIONAL SPITFIRE MONUMENT TAKES OFF

There is no time like the present to commemorate great courage. The National Spitfire Project has launched its public fundraising appeal today, on the eve of the 77th anniversary of VE-Day, to construct the national monument to a great British icon – the Supermarine Spitfire.

This new national monument will commemorate all the men and women from more than 30 allied countries who designed, built, flew and maintained this aircraft during the Second World War – honouring the past and inspiring future generations.

The National Spitfire Monument will appear to soar into the skies over the English Channel at Southampton, adjacent to the Spitfire's Hampshire birthplace – the location for this national icon has been determined by both the aircraft's production birthplace (the Vickers-Armstrongs Aviation Supermarine Works at Woolston, previously known as the Supermarine Aviation Works) and its maiden flight (from Southampton Municipal Airport in Eastleigh, now Southampton Airport, on 5 March 1936).

Standing 40m tall, on a par with the scale of the Statue of Liberty, it will be a gleaming stainless-steel structure – one and a half times the size of the original aircraft. Roundels and emblems in the base will be interactive and educational, and the monument is expected to be seen by more than seven million people every year.

The monument has official backing at national and local levels – with £3m match funding promised by UK Government and the support of Southampton City Council.

Commenting on the fundraising launch, John M Hannides, Chairman of the National Spitfire Project – the charity behind the monument – and Southampton City Councillor, said:

"The Spitfire is a great British icon. It embodies courage and hope against adversity, it is the epitome of engineering excellence and innovation, and it represents the spirit of collaboration too – diversity and unity, coming together for a common cause. During the Second World War, men and women from all over the world helped raised funds to 'build a Spitfire' for the war effort. Some people paid a few pennies 'for a spark plug'; some towns and companies 'paid for a wing' or 'an engine' – or even funded a whole aircraft. Fundraising for the new National Spitfire Monument continues to draw on that same public goodwill, alongside the UK Government's match funding."

Also commenting, Royston Smith GM MP, one of the Trustees of the National Spitfire Project, said:

"The iconic Spitfire was instrumental in defending our country during WW2 but particularly during the Battle of Britain. This country and our lives would have been very different but for the heroism of the young pilots who bravely took to the skies in R J Mitchell's magnificent feat of engineering. We are proud to call Southampton the home of the Spitfire and I am grateful to the Government for trusting us to deliver this project and for supporting it by match funding donations with £3m from Treasury."

Commemorating people

Men and women of many nations devoted themselves to the Spitfire's testing and construction, its delivery, its maintenance, and the flights that it made. The engineering of the Spitfire, designed in Southampton, gave the aircraft better turns of speed, better aerobatic abilities, and an impressive turning circle – all needed to help outmanoeuvre enemy aircraft. Pilots loved it. The people were inspired by it. The National Spitfire Monument will commemorate all those who were involved, and the monument's plinth will be interactive too, so that visitors can learn more about the aircraft, its heritage, and its pivotal role in the Battle of Britain.

"The Spitfire is never forgotten, but we have never had a national monument to this aircraft as a fitting tribute to all those who helped build it, fly and maintain it – and protected our skies with it. The Spitfire has great international importance, with a silhouette that inspires hope and a sound that inspires awe. Thanks to Government funding, we've secured half the money already to build this stunning monument, and now we need the public's help to raise the remaining £3m. Every penny counts – it's a monument in peacetime that sends a message: we will remember them," said Cllr Hannides.

RAF C-17 GLOBEMASTER

The Royal Air Force had been without an organic outsize strategic lift capability since the Short Belfast was withdrawn in 1976, relying, ironically, on civilian operated Belfasts for the movement of such loads during the 1982 Falklands War and making use of chartered freighters.

By the end of the 1990s it had become clear that this capability gap ought to be filled, and in 2000 the Ministry of Defence (MoD) agreed a seven-year 'lease and support' contract with Boeing and the US Air Force (USAF) for four C-17A Globemaster III (Globemaster C-17) strategic transports.

On August 28, 1981, the USAF had chosen the McDonnell Douglas C-17 as winner of its C-X competition for a new military transport aircraft primarily to replace the Lockheed C-141 StarLifter. The C-17's development process was less than straightforward, however, a complex and changing procurement schedule delaying first flight until September 15, 1991. Internal manoeuvrings at McDonnell Douglas further complicated the programme as C-17 responsibility moved between divisions and although the 1993 first delivery to an operational USAF unit was from the original manufacturer, in 1997 the C-17 became a Boeing product on the latter's acquisition of its rival.

The C-17A had become the Globemaster III on February 5, 1993, following on from the USAF's Douglas C-74 Globemaster and C-124 Globemaster II post-war piston-engined transports. By the time the UK defined its initial C-17 requirement the type was well established in service and the RAF benefitted from access to the global C-17 support network and supply chain. In UK service, the type is typically referred to as C-17 or Globemaster, no formal RAF role/numerical designation (Globemaster C.Mk 1 would have followed the regular pattern of aircraft titles) being applied, since the aircraft was initially leased.

Number 99 Squadron reformed at RAF Brize Norton to operate the aircraft, which rapidly became a stalwart and key enabler of the airbridge operation that sustained UK operations in Afghanistan. Even at the peak of Operation Herrick, however, the C-17 serviced humanitarian and operational commitments elsewhere and rather than taking an option to extend the C-17 lease by two years, the MoD bought the initial four aircraft and ordered a fifth in 2006.

Continued demand saw a sixth ordered in 2007, a seventh in 2009 and the eighth and, to date, final example in 2012. The latter was ordered and delivered within weeks at a reported cost of £200 million according to an MoD press statement.

With the end of Herrick, 99 Sqn has continued flying many of the types of mission in which the C-17 excelled during the operation, moving personnel and equipment, and performing aeromedical evacuation missions with a suite of surgical facilities and staff on board. Support to deployed operations remains as important as ever and RAF C-17s are regular visitors to allied forward bases, particularly in connection with French anti-terrorist work in Africa.

Humanitarian flights, typically planned and flown wherever needed at very short notice, are common 99 Sqn trade, while the fact remains that when a C-17 taxies onto an airfield ramp anywhere in the world, with the Union Jack painted large on its side, there can be no doubt that UK interests are involved. ■

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HOUSE OF PHANTOMS

houseofphantoms.com

What an excellent name for an organisation. They have sent an outstanding 1:48 Phantom decal set for review. The House of Phantoms is part of the Double Ugly/AirDOC organisation in Germany. See houseofphantoms.com for their range of decals, kits, books and accessories.

This set consists of a large (A4+) decal sheet of the main markings, a smaller sheet of black stencilling, a sheet of grey walk-way markings and two tiny sheets of odd items. The instructions cover 17 A4 sheets, colour printed both sides, starting with some colour photos of Phantoms in the Norm schemes provided. Two sets of Luftwaffe insignia are provided on the decal sheet with a good supply of spare numbers to model your Phantom of choice.

LUFTWAFFE PHANTOMS – F-4F IN NORM 81A/1B CAMOUFLAGE (SHEET NO. HOPD 48002)

There is a list of the no less than 35 F-4Fs on offer. All are Norm schemes, based on different shades of grey applied in differing ways. None of these are the special commemorative schemes for which the Luftwaffe is famous but Phantoms with, for example colourful tails for recognition.

Camouflage schemes by their very nature are to make the aircraft inconspicuous. In combat this is good but when training it can be dangerous when other aircraft are in the vicinity running the risk of a mid-air incident.

While this set of decals is designed to fit Zoukei Mura kits (at the time of writing there is not a F-4F in their range) we don't see any reason why the decals will not be very suitable for the aged Hasegawa F-4F 1:48 kit if you can find one. To date, decals for the German Phantoms have been few and far between, so these are very welcome. Here are the 35 options available.

01 F-4F 38+56, 72-1266 with JG 71 ‘Richthofen’ when at CFB Goose Bay in Canada in May 1986. At the time this Phantom had a fresh Norm 81B scheme with a large shark’s mouth on the nose, the unit’s ‘R’ badge on the fuselage and bright red paint applied to the tail fin, nose gear door and outer areas of the stabilators (top and bottom).
02 F-4F 38+74, 72-1284 with JG 71 ‘Richthofen’ when at CFB Goose Bay in Canada in May 1986. This Phantom is in the standard Norm 81B scheme with just a very small unit ‘R’ badge on the sides of the intakes and ‘kill’ symbols on the splitter plate.
03 F-4F 38+40, 72-1250, JG 71 ‘Richthofen’ at Kleine-Brogel AB in Belgium in September 1994. A worn Norm 81B scheme was applied with a red rudder, outer stabilators, wing tips and nose gear door.
04 F-4F 37+74, 72-1157 with JG 71 ‘Richthofen’ at Wittmund in April 1984. The standard Norm 81A paintwork was applied with RAL Silbergrau undersides.
05 F-4F 38+07, 72-1217 with JG 71 ‘Richthofen’ when at CFB Trenton in Canada in June 1986. The scheme was Norm 81A with a white tail fin, nose gear door and upper and lower outer stabilators with the unit’s ‘R’ symbol on the runner.
06 F-4F 37+89, 72-1199, JG 71 “Richthofen’ at CFB Bagotville in Canada in June 1986. Norm 81A applies to this aircraft with a white tail fin, outer stabilators, wing tips and nose gear door. The unit’s ‘R’ symbol appears on the tail fin.
07 F-4F 38+24, 72-1234, JG 74 “Mölders’ at CFB Trenton in Canada in June 1986. A worn coat of Norm 81B applies with a yellow tail fin, outer stabilators and wing tips. The unit’s badge appears of the intake sides.
09 F-4F 38+48, 72-1258, JG 74 ‘Mölders’ at CFB Goose Bay in Canada in May 1986. The scheme is Norm 81B with a yellow tail fin, outer stabilators, wing tips and nose gear door and the unit’s badge on the intake sides.
09 F-4F 37+60, 72-1170, JG 74 ‘Mölders’ at

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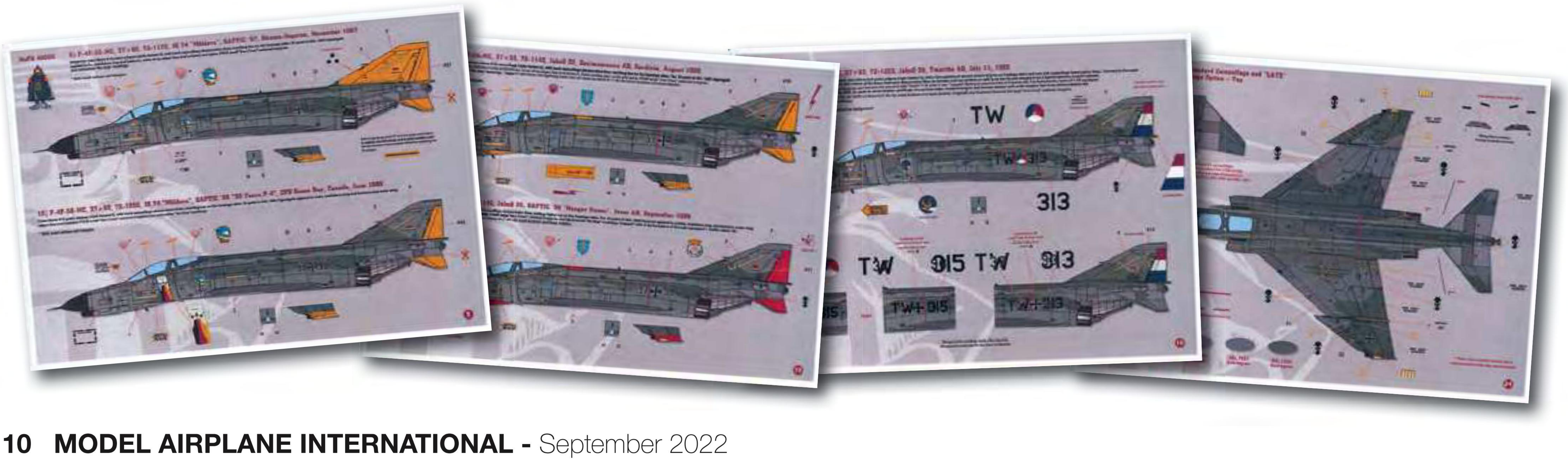
Rheine-Hopsten in November 1987. Norm 81A camouflage applies with yellow on the tail fin, outer stabilators, wing tip and an upper fuselage panel. The unit's badge was on the intakes.
10 F-4F 37+92, 72-1202, JG 74 'Mölders' at CFB Goose Bay in Canada in June 1988. Artwork celebrating 30 Years F-4 was applied to the intake splitter plate. The scheme was Norm 81A with a yellow rudder, outer stabilators and wing tips.
11 F-4F 37+83, 72-1193, JG 'Mölders' at CFB Goose Bay in Canada in May 1986. This Phantom carried the Norm 81A scheme, red tail surfaces and wing tips. A large red heart was carried on the fuselage sides and a cat cartoon on the splitter plates.
12 F-4F 37+82, 72-1202, JG Mölders' at TAM '84 held at Gilze-Rijen Air Base in The Netherlands in June 1984. Norm 81A was applied with the exercise's artwork in unit's badge on the intake.
13 F-4F 38+26, 72-1236, JaboG 35 at CFB Goose Bay in May 1986. The scheme was Norm 81A with the small unit's badge and large black Ace of Spades on the intake side.
14 F-4F 37+11, 72-1121, JG 74 'Mölders' at Neuburg Air Base in Germany, July 1983. Norm 81B was the scheme with the Mölders badge on the intakes.
15 F-4F 37+49, 72-1159 with JaboG 35 at CFB Goose Bay in May 1983. The scheme was Norm 81A with the unit's badge on the intakes and red rudder and outer stabilators.
16 F-4F 38+29, 72-1239 with JaboG 35 at CFB Goose Bay in June 1988. A hybrid version of Norm 81A was carried with the unit's badge on the intakes.
17 F-4F 37+28, 72-1138 with JaboG 35 when on an exchange with No. 43 Squadron at RAF Leuchars in 1985. Norm 81A hybrid scheme was applied with the No. 43 Squadron's 'Fighting Cock' emblem on the splitter plate and JaboG 35's badge on the intake.
18 F-4F 37+50, 72-1160 with JaboG 35 at Pferdsfeld AB in Germany in August 1983 wearing a fresh coat of Norm 81B.
19 F-4F 37+33, 72-1143 with JaboG 35 at Decimomannu AB, Sardinia in August 1996. This Phantom had a heavily worn Norm 81B scheme with a yellow rudder, outer stabilators, wing tips, nose gear door and panel on the upper fuselage.
20 F-4F 37+35, 72-1145 with JaboG 35 "Hangar Queen' at Jever AB in Germany in September 1996. A clean Norm 81B scheme was applied with a red rudder, outer stabilators, wing tips and nose gear door.
21 F-4F 37+30, 72-1140 with JaboG 35 'Shark's Mouth' at CFB Goose Bay, Canada in June 1995. The scheme is described as a worn-out Norm 81B with blue control surfaces on the tail, nose gear door and wing tips. There is a small shark's mouth on the nose and unit badge on the intakes.
22 F-4F 37+22, 72-1132 with JaboG 35 when on a squadron exchange at Torrejon in Spain in June 1986. A tidy Norm 81B scheme was applied with the unit's badge on the intakes and Ala 12's black cat emblem zapped on the intake splitter plate.
23 F-4F 38+50, 72-1260 with JaboG 35 on exercise at Decimemannu AB in Sardinia in June 1987. A heavily worn version of Norm 81B had a blue fin top and red band on the rudder with the unit's badge on the intakes.
24 F-4F 37+34, 72-1144 with JaboG 35 at the Phantom maintenance base, Jever AB in 1993. Jever's insignia was applied to the tail fin and Phantom badge on the intake sides. A very clean version of Norm 81A was applied.
25 F-4F 37+07, 72-1117 with JaboG 36 '50 Years Fürstenfeldbruck AB' in October 1985. The worn Norm 81A had a yellow rudder, the unit's badge on the intake side and a matching Italian squadron black prancing hose badge zap.
26 F-4F 37+55, 72-1165 with JaboG 36 at CFB Goose Bay in Canada in 1985. A bold stripe of German flag colours was applied to one side of the fuselage with the words 'Welcome to Goose Bay' superimposed in silver lettering over a clean version of Norm 81A camouflage.
27 F-4F 38+09, 72-1219 with JaboG 36 at exercise TAM 86 at Kleine-Brogel AB in Belgium, June 1986. The paintwork was very worn Norm 81A with touch-up patches in places. JaboG 36's badge was applied to the intake sides and 'kill' symbols on the intake splitter plate.
28 F-4F 38+73, 72-1283 with JaboG 36 at exercise TAM 86 at Kleine-Brogel AB in Belgium, June 1986. The paintwork was very clean Norm 81A with a yellow tail fin top. JaboG 36's badge was applied to the intake sides and 'kill' symbols on the intake splitter plate and TAM 86 badge.
29 F-4F 38+57, 72-1267 with JaboG 36 'Westfalen' at Rheine-Hopsten AB, October 1990. A heavily worn Norm 81B was present with numerous touch-up patches and the unit's badge on the intake sides.
30 F-4F 37+24, 72-1134 with JG 72 'Westfalen' at Rheine-Hopsten AB in 1991. A clean Norm 81B scheme was carried with a Canadian Air Force zap on the tail fin and the unit's badge on the intake sides.
31 F-4F 37+93, 72-1203 with JaboG 36 at Twenthe AB in The Netherlands, July 1983. The worn and well-used version of Norm 81A had been modified by Dutch Air Force personnel. At that time the Dutch home squadron used the NF-5 and applied their flag colours to the Phantom's rudder, their insignia to replace the German 'Iron Cross' and their lion's head badge to the nose. A great scheme for those looking for something out of the ordinary.
32 F-4F 37+19, 72-1129 with JG 72 'Westfalen' at Rheine-Hopsten, April 1995. A worn-out Norm 81B camouflage applies with a yellow rudder, wing tips and nose gear door with the unit's small badge on the intake sides.
33 F-4F 38+43, 72-1253 with JG 72 'Westfalen' when ICE & ARMAAM' testing at NAS Point Mugu, USA, October 1992. A clean version of Norm 81B applies with a grey-painted nose and 'ICE-43' in white lettering on the tail fin and various badges on the intake sides.
34 F-4F 37+15, 72-1125 with WTD 61 at the Manching AB Open House, 15 July 1987. The Norm 81A was clean and the unit's badge appears on the intake sides.
35 F-4F 37+15 72-1125 with WFD 61. This Phantom was then "ICE & ARMAAM' Testing at NAS Point Mugu, USA, October 1992. Norm 81A was applied with ICE-15 in white lettering on the tail fin and rear fuselage panels in polished natural metal with a grey radome.

Following the individual aircraft colour instruction sheets we have several sheets of detailed camouflage pattern instructions and masses of stencilling placement information. This is a stunning set. We really can't see how it could be better. For placing orders, see their web site: houseofphantoms.com and you can take a close look at the instructions by following the link. Thanks to House of Phantoms for sending their new decal set for review. Hannants also carry stocks of this sheet. ■

Alan Firbank



COVENTRY'S VOODOO

SPENCER POLLARD TAKES A CLOSE-UP LOOK AT COVENTRY AIR MUSEUM'S F-101B VOODOO

There are not too many chances to see an F-101 Voodoo in the UK, but you can catch a glimpse if you travel to the Coventry Air Museum to take a look at their exhibit.

Coventry's F-101B Voodoo is on loan from the USAF Museum, and as such, it is marked as 'under restoration'. I have a feeling that it was originally in USAF colours, but as it stands now, it has been repainted as a 'metal' aircraft in Canadian markings. The exhibit offers plenty of chance to get close in and personal with this massive aircraft, allowing you the chance to examine its many surface features, undercarriage, jet pipes and other details that are so much a part of its make-up.

Here, you can see some images that we took of Coventry's machine, images that we hope help to capture the essence of the Voodoo. But if you would like to see more of its and other aircraft in their collection, we can wholeheartedly recommend a visit to this small, but very pleasing museum. ■

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REFERENCE: F-101B VOODOO CLOSE-UP

FMA IA 58 PUCARÁ

THE FMA IA 58 PUCARÁ IS AN ARGENTINE GROUND-ATTACK AND COUNTER-INSURGENCY (COIN) AIRCRAFT MANUFACTURED BY THE FÁBRICA MILITAR DE AVIONES

The IA 58 Pucará is of conventional all-metal construction. The unswept cantilever wings have 7 degrees of dihedral on the outer panels and are fitted with slotted trailing-edge flaps. The IA-58 has a slender fuselage with a tandem cockpit arrangement. The crew of two is seated under the upward opening clamshell canopy on Martin-Baker Mk 6AP6A zero/zero ejection seats and are provided with dual controls and good visibility, at least in the lateral and front quarters.

The clean aerodynamic design allow the Pucará to reach relatively high speed, higher than the American OV-10 Bronco, another COIN aircraft. On the other hand, the IA 58 has no cargo bay inside the fuselage as requested for the American aircraft.

Armour plating is fitted to protect the crew and engines from ground fire. The aircraft is powered by a pair of Turbomeca Astazou engines, driving sets of three-bladed Ratier-

Destroyed Argentine Pucara on Pebble Island, 1982

A museum Pucara display in striped camouflage.

Forest 23LF propellers; the propellers are also capable of being used as air brakes.

The Pucará was designed for operations from short, rough airstrips. The retractable tricycle landing gear, with a single nosewheel and twin mainwheels retracting into the engine nacelles, is fitted with low pressure tyres to suit operations on rough ground, while the undercarriage legs are tall to give good clearance for underslung weapons loads. Three JATO rockets can be fitted under the fuselage to allow extra short takeoffs. The spring suspension system is like the one used in the Junkers Ju 88, while the tail has a T configuration to improve take-off.

Fixed armament of the Pucará is comparable with WWII era aircraft, and directly comparable with the German Messerschmitt Bf 110. It consists of two Hispano 804 20 mm cannons mounted under the cockpit with 270 rounds each and four 7.62 mm Browning FN machine guns mounted on the sides of the fuselage with 900 rounds each.

Three hardpoints are fitted for carrying external stores single or in clusters (as example up to six bombs under the fuselage or two rockets under each wing) such as bombs, rockets or external fuel tanks, with one of 1,000 kg capacity mounted under the fuselage and the remaining two, of 500 kg capacity beneath the wings. Total external weapons load is limited to 1,620 kg (3,570 lb). Onboard armaments are aimed by a simple reflector sight.

By the time of the Falklands War, about 60 Pucarás had been delivered As one of the few aircraft of the Argentine service capable of flying operationally from the small airfields in the Falklands, as the runway at Port Stanley Airport was not long enough for FAA Skyhawks and Mirages to be deployed, it was decided to deploy a number of Pucarás to the Falklands, with four arriving at Port Stanley on 2 April 1982, with a further eight arriving on 9 April. Many of the Pucarás remaining on the mainland were moved to Puerto Santa Cruz or ►

A view of the same aircraft from the port side.

Close up of the nose.

Nose wheel bay.

Comodoro Rivadavia in southern Argentina where they were closer to the Falklands if needed for reinforcements, and were used to perform coastal surveillance.

Most aircraft used in combat were armed with unguided bombs, 2.75 inch rocket pods, or 7.62 mm machine gun pods. Pucarás operated from Port Stanley airport and two small grass improvised airfields at Goose Green and Pebble Island. They were used in the reconnaissance and light-attack role.

Three Pucarás were destroyed and one of their pilots killed at Goose Green by cluster bombs dropped by 800 NAS Sea Harriers on 1 May 1982. Six more were destroyed in the SAS Raid on Pebble Island on 15 May 1982.

On 21 May a Pucará was lost to a Stinger SAM fired by D Squadron SAS (the first Stinger launched in combat) and another to 30 mm cannon rounds from Cmdr Nigel Ward's RN Sea Harrier,[19][20] the latter after leading a successful two-aircraft raid on a shed allegedly used as an observation post by British forces. The aircraft was surprisingly tough, as Ward observed no fewer than 20 cannon hits before the target started to fall to earth. The other Pucará, piloted by Lt Juan Micheloud, made good its escape after being chased by Lt Cdr Alasdair Craig's Sea Harrier. Major Carlos Tomba, the pilot of the aircraft shot down by Cmdr Ward, survived the ejection and was recovered by friendly forces. On the 28 May whilst assisting 2 Parachute Regiment retake Goose Green, the Type 21 frigate HMS Arrow fired 161 shells from her 4.5" gun. This Naval Gunfire Support destroyed 2 Pucaras at Goose Green.

Two Pucarás shot down a Royal Marines Scout helicopter with 7.62 mm machine gun fire on 28 May, while it was on a casualty evacuation mission during the battle of Goose Green. This was the only confirmed Argentine air-to-air victory of the war. One

Pucara pilot's helmet.

Argentine Pucara from the Falklands War.

of these Pucarás crashed into Blue Mountain on the return flight to Port Stanley and was destroyed—the body of the pilot (Lt Miguel Gimenez) was found in 1986, and was buried with military honours at Port Darwin by his family, the first Argentine relatives to visit the Falklands since the end of the war.

Also on the 28 May 2 PARA shot down a Pucará with small arms fire after it launched rockets on British troops (without causing any casualties), during the Battle of Goose Green. Lt Miguel Cruzado ejected and became a POW.*

* Historical text summarised from Wikipedia https://en.wikipedia.org/wiki/FMA_IA_58_Pucará ■

Pucara armament.

Outdoor Pucara on display.

BARRACUDA STUDIOS' 1:32 A-4K KAHU CONVERSION AND ACCESSORY PARTS

Roy Sutherland from Barracuda Studios has send information and images of their brand new 1:32 scale Douglas A-4K Kahu Conversion and associated accessories, designed to be used on the Trumpeter Skyhawk kit.

Details as follows:

BR32386 1:32. Douglas A-4K Kahu Conversion

Contains all the (mostly 3D printed) parts to convert the A-4E/F into a RNZAF Kahu. Cockpit upgrades include a new, modern instrument panel with multi function displays and instrument decals, a new throttle and stick top, rudder pedals, and gunsight with clear cast HUD glass.

New external details include a new fin top, a number of blade antennas, early and late parabrake housing, cooling intakes and a clear cast high intensity strobe light.

Designed for the Trumpeter A-4E or F kit, but can be modified to fit the older Hasegawa Skyhawk.

Designed by Kerry Carlyle, Mike Swinburne and Craig Sargent. Research assistance from Craig Sargent and Anthony Galbraith.

BR32477 1:32. A-4 Skyhawk 300 Gallon Droptanks

The Aero 1D 300 gallon tanks were widely used, and were carried in this configuration by all variants of the Skyhawk as well as the F4D Skyray.

This set consists of a pair of highly accurate and detailed 3D printed droptanks, complete with separate shackles for mounting to pylons.

Drop tanks are printed hollow, so they will not weigh down an already large and heavy model.

These tanks replace the inaccurate and less detailed tanks found in most 1:32 kits. Master pattern by Kerry Carlyle, with research by Craig Sargent.

BR32480 1:32. A-4 Skyhawk Intake and Exhaust Set

Contains a new, accurate engine compressor face clearly visible through the kit intakes and new engine rear.

The kit part does not capture the look well. Also included are a new turbine face and complete jet exhaust pipe with detailed nozzle. All parts are 3D printed.

Designed for Trumpeter A-4E/F/G/K Skyhawk variants. Can be made to work with the Hasegawa A-4 as well.

Master patterns designed by Mike Swinburne. Research assistance by Craig Sargent. ■

Thanks to Barracuda Studios for the images and information www.barracudacals.com

NEW APACHE ATTACK HELICOPTER MAKES ITS FIELD DEBUT

New Apache attack helicopter makes its debut in the field

The British Army's new Apache AH-64E Attack Helicopter has made its first outing into the field.

Exercise Talon Guardian has seen 3 Regiment Army Air Corps take a 1,500km road trip over two weeks, establishing itself at three separate locations across the country to plan and execute attack missions and maintain the state-of-the-art helicopters.

3 Regt AAC's commanding officer Lieutenant Colonel Simon Wilsey said: "Exercise Talon Guardian is a really significant step forward for the British Army's AH-64E, which is the most advanced attack helicopter in the world. We've been working hard to learn how to fly and maintain the AH-64E; now we're getting the aircraft out into the field, tackling the additional complexities of living, planning, maintaining and operating in an austere environment and developing how we fight with it.

"As befits a new aircraft with vastly improved capabilities, we're not just going back to what we did before. We're beginning to use all the new systems and capabilities, and looking at the lessons of current conflicts, adapting to ensure our relevance and survivability. It is all about the basic field craft in the air and on the ground. So, for how we operate on the ground, it's dispersing and camouflaging our positions to prevent observation by drones and communicating by data and over long range; and aircrew must fly using natural cover and all the aircraft's sensors to counter air defence systems and low-tech threats.

"We've learnt a lot and we'll continue to learn as we look to exploit the full capabilities of this awe-some aircraft."

The exercise saw 3 Regt AAC preparing for its core role providing an aviation deep attack battle-group, as part of 1st Avn Brigade Combat Team, to 3rd (UK) Division, the British Army's war fighting division. In this role, the AH-64E will be a key element of how the Army fights in the coming dec-ades, as set out in the Future Soldier programme.

The training started with the unit deploying from its base at Wattisham Flying Station in Suffolk to the rugged Otterburn Ranges in Northumberland. Amid the area's trademark fog, rain and wind, aircrew tested themselves on the air defence ranges of RAF Spadeadam and hunted for artillery and armoured vehicles.

Staging through RAF Wittering in Cambridgeshire, the unit then moved to Bramley in Hampshire for the AH-64Es to hunt on Salisbury Plain for Challenger 2 tanks protected by air defence systems.

Apache pilot Captain 'H' said the switch to the AH-64E from the Apache Mk.1 it replaces was "like changing your mobile phone from a Nokia 3310 to an iPhone 14".

"The aircraft may look the same from the outside, but everything's changed inside to bring improved capabilities in sensors, flying performance, weaponry and communications," he said. "We're able to do our job so much better, because the new aircraft means an expansion of the area over which we can deliver effect - whether that's detecting and engaging threats or sharing information with other aircraft or ground callsigns."

Throughout the exercise, Royal Electrical and Mechanical Engineers technicians kept the aircraft in working order, while ground crew ran isolated Forward Arming and Refuelling Points - the military equivalent of a Formula 1 pit stop - to keep the aircraft's fuel tanks and weapons pylons full.

REME aircraft technician Lance Corporal Chris Voller said: "We've learnt in the hangars how to maintain the AH-64E for day-to-day flying, bringing it out into the field is the next step. We've had deal with working in all weathers and keeping our tools clean, while moving between locations means a lot of packing and unpacking kit. But the Apache is a battlefield aircraft, and this is where it's designed to be - it's been good to get out to train as we would fight." ■

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WINTER ON THE TYPHOON FLIGHT LINE AT RAF CONINGSBY

Typhoon aircraft on the flight line of number 29 Squadron and number 12 Squadron at RAF Coningsby in Lincolnshire on a cold December morning

The Typhoon can carry a vast range of Air-to-Air and Air-to-Surface weapons, including the Storm Shadow conventionally armed stand-off missile, the Brimstone anti-armour weapon and laser guided bombs, as well as the Litening laser targeting and reconnaissance pod.

The Typhoon FGR.Mk 4 is a highly capable and extremely agile fourth-generation multi-role combat aircraft, capable of being deployed for the full spectrum of air operations, including air policing, peace support and high-intensity conflict. The aircraft has a potent, precision multi-role capability. The pilot performs many essential functions through the aircraft's hands on throttle and stick (HOTAS) interface which, combined with an advanced cockpit and the Helmet Equipment Assembly (HEA), renders Typhoon superbly equipped for all aspects of air operations.

Although Typhoon has flown precision attack missions in all its combat deployments to date, its most essential role remains the provision of quick reaction alert (QRA) for UK and Falkland Islands airspace.

Typhoon Display aircraft is known as 'Blackjack' due to its unique Union Flag markings. ■

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XTRADECAL

www.hannants.co.uk

AVRO ANSON MK.I COLLECTION PT1 (SHEET NO. X48231)

This is a sheet and a half set of markings for six 1:48 Ansons with the Airfix kit in mind but would equally apply to the rare Classic Airframe kit should you still have one. The smaller sheet carries two large roundels and three sets of underwing codes.

By the way, we are not loving Xtradecal's recent change to very flimsy zip lock bags that are eye-wateringly tight around the decal sheet and instructions. My sympathy to the poor soul who is packing these.

01 Anson Mk.I, W2531 with No. 8 Service Flying Training School, Royal Canadian Air Force at Moncton, New Brunswick, Canada in September 1941. This Anson is in overall Trainer Yellow with Black stripes covering much of the fuselage and the upper wings.
02 Anson Mk.I, N9742, MW-Y with No. 321 (Dutch) Squadron at RAF St. Eval in 1940. The scheme is the standard RAF day camouflage scheme at the time with a pattern of Dark Green and Dark Earth on the upper surfaces with Sky undersides.
03 Anson Mk.I, W2531, 'J3' with No. 31 Air Navigation School, RCAF at Port Albert, Ontario, Canada in 1941. The paintwork is overall Trainer Yellow.
04 Anson Mk.I, N9561 with No. 9 Flying Training School at RAF Hullavington in Wiltshire, 1939-1940. The upper surfaces are in a pattern of Dark Green and Dark Earth with Trainer Yellow on the lower wings and bottom half of the fuselage.
05 Anson GR.Mk.I (Early), K6189, VX-R with No. 206 Squadron at RAF Bircham Newton, Norfolk in 1939. The scheme was a pattern of Dark Earth and Dark Green on the upper surfaces with Aluminium painted undersides.
06 Anson Mk.I, NZ418, 'V' with the School of General Reconnaissance, RNZAF at Station Omaka, New Zealand, 1943-1944. The colour scheme was a pattern of Ocean Blue and Dark Green on the upper surfaces with Sky Blue undersides.

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XTRADECAL

www.hannants.co.uk

AVRO ANSON MK.I COLLECTION PT2 (SHEET NO. X48232)

This is another (almost) double sheet set of markings for six Ansons. Again, the second sheet carries large roundels and underwing codes.

01 Anson Mk.I (Early), K6163 with the RAF's Central Flying School at RAF Upavon, Wiltshire in 1937. The scheme was overall Aluminium dope.
02 Anson Mk.I (Early), K6321, '269/Y' with No. 269 Squadron at RAF Abbotsinch near Glasgow, Scotland in 1938. This turret-less Anson was finished in overall Aluminium dope.
03 Anson Mk.I (Early), A4-21 with No. 22 Squadron RAAF based at Richmond, New South Wales, 1938-1939. Now we are puzzled – the narrative instructions say that this Anson is in overall Trainer Yellow but the illustration shows overall Aluminium dope.
04 Anson Mk.I (Early), A4-27 with No. 4 Service Flying Training School, RAAF at Geraldton in Western Australia in 1941. Again, the instructions are contradictory – the narrative says overall Trainer Yellow and the illustration show an Aluminium aircraft with a wide Trainer Yellow band around the rear fuselage.
05 Anson Mk.I, W2034, Royal Australian Air Force in 1943. This is a Red Cross aircraft with a massive Red Cross on the underside of the fuselage with smaller ones on the wings and fuselage. The scheme is a pattern of Dark Earth and Foliage Green on the upper surfaces with White undersides.
06 Anson Mk.I, W2090, '6453' with No. 1 Air Observer School, RCAF at Malton, Ontario, Canada in June 1941. The scheme is a pattern of Dark Earth and Dark Green on the upper surfaces over Trainer Yellow under sides. Part of the upper wings and upper fuselage are also in Trainer Yellow.

AVRO ANSON MK.I COLLECTION PT3 (SHEET NO. X48233)

Part 3 is another (almost) double sheet set with the second sheet carrying two large Finish swastika roundels and Irish Air Corps colour bands. This set consists of 6 international schemes for those looking to do an Anson out of the ordinary, with insignia that would fit well into an aviation quiz.

01 Anson Mk.I (Early), '20' with the Irish Air Corps No. 1 Reconnaissance & Medium Bombing Squadron in 1937. The fuselage paintwork is Light Green and the wings Aluminium with the colours of the Irish flag on the rudder, and in wide bands on the upper and lower wings.
02 Anson Mk.I (Early) '158' with the 3rd Air Division of the Estonian Air Force at Tallinn in 1936. The scheme is overall Aluminium with Light Blue, Dark Blue and White bands on the rudder.
03 Anson Mk.I, AN-102, with Le.Lv.48, the Finnish Air Force in 1942. The paintwork is Dark Green on the upper surfaces with Aluminium painted undersides.
04 Anson Mk.I, 'N56' with the Royal Hellenic Air Force when operating in North Africa in 1941. A pattern of Dark Earth and Dark Green was applied to the upper surfaces with Night Black undersides.
05 Anson Mk.I (Early), 1134, 'C2' with the South African Air Force, 1939 to 1940. This Anson carried an overall painted Aluminium finish.
06 Anson Mk.I with Hava Mustesarligi Air School of the Turkish Air Force in 1940. The scheme was Dark Green upper surfaces and Pale Blue undersides with a Red rudder carrying the Turkish Crescent and Star insignia.

Those with a build of the Airfix 1:48 Anson in mind will have some great schemes and markings from which to choose from the three sheets reviewed above.

The above decal sets were sourced from Hannants of Lowestoft. See their website: hannants.co.uk for details, prices and ordering.

Alan Firbank, March 2023

IN PRINT

DUKE HAWKINS

Boeing F-15E/K/5G Strike Eagle

www.hmh-publications.com

- By Duke Hawkins
- Published by H.M.H. Publications
- Guide Price £35.99
- ISBN: 978-2-931083-19-2
- 196pp softback, 240 x 240mm

This month we introduce No.26 in Duke Hawkins' Aircraft in Detail Series, another iconic jet, the mighty F-15E Strike Eagle family, one of my personal favourites. It is amazing to think that the F-15 first flew over 50 years ago in July 1972. The F-15E Strike Eagle entered USAF service at the end of 1988 and has been busy ever since. When looking for a replacement, it was decided that an updated version would be the best for the job so the F-15EX was developed and an order for 144 was placed in 2022. Despite the age of the F-15E, the production line is still turning out new Strike Eagles. While outwardly, the F-15EX looks the same as the old Strike Eagle, the avionics and weapons systems have been brought right up to current standards. We in the UK are lucky, having Strike Eagles with the 48th Fighter Wing based at RAF Lakenheath and making regular appearances at air shows, especially RIAT at Fairford. F-15Es with their LN tail codes feature regularly throughout this book.

This book follows the familiar pattern by taking a close look at the Eagle's airframe beginning with the forward fuselage. Everything up to the air intakes are shown in fine detail, all those grills, ladders, aerials, etc. Seeing how various areas are stained and weathered will be useful when finishing your model. One area that shows a degree of scuffing is around the entrance to the in-flight refuelling probe. All these features are shown in fine detail on the dozens of photos, two or three on each page. An area of great interest is the cockpit, covered here in 20 pages. As well as the photos of the instrument panels, there are good photos of the seats and all around the inside of the canopy. Photos of this area are rare and will be useful especially when building larger scale models such as the 1:32 Tamiya kit.

For those who may look for a F-15E in a colour other than Gunship Gray, there are a few pages of lovely shots of Israeli Eagles in their attractive desert camouflage scheme. Another area that can be problematic in a kit is the undercarriage. We have seen all the parts in a kit box but vague instructions result in much head scratching when trying to work out where the parts locate. Over a dozen pages show the undercarriage units, wheels and wheel wells in great detail.

For those who love to add more detail, the section on maintenance will be very useful. Many panels are shown open with engines removed. Photos showing close-up of the exhausts with mechanisms and colours inside and out. Strike Eagles carry a wide variety of ordnance as well as the large fuel tanks carried much of the time. These items are all shown in detail, including the luggage pods used to carry crews' personal belongings. The final pages are devoted to Eagle Action with many Strike Eagles in the air, taken from all angles and belonging to different operators.

Kit producers have been kind to the F-15 series and there are several F-15E kits in the usual scales. Even the elderly 1:32 Tamiya Strike Eagle is aging well and with a few aftermarket additions turns into a superb model. Hasegawa's 1:48 F-15E kit has appeared in several boxes from the original demonstrator in its camouflage scheme to more up-to-date versions. Strike Eagle kits are available from 1:144 to 1:32.

Those modellers with a Strike Eagle project in mind will find this book invaluable. All pictures are pin-sharp and are accompanied by informative captions. The first profile books from Duke Hawkins set a high standard that flows through the ones that followed. You will find copies of this book at the usual specialist aviation book suppliers such as Avid Reader/ Bookworld Wholesale and Hannants also stock Duke Hawkins titles.

Alan Firbank
March 2023

302ND TACTICAL FIGHTER SQUADRON (JASDF)

Summary:

Active: 1 October, 1974 - present
Country: Japan
Branch: Japan Air Self-Defense Force
Part of Northern Air Defense Force, 3rd Air Wing
Garrison/HQ: Misawa Air Base

Along with the 301st Tactical Fighter Squadron, the 302nd is responsible for air defence of the Tokyo Metropolitan area.

History:

302nd Tactical Fighter Squadron was formed on 1 October, 1974 at Chitose Air Base in Hokkaido as the second of the JASDF's F-4 Phantom squadrons. It was the first operational unit to operate the F-4, the 301st being the first training unit. It also operated Lockheed T-33A trainer/liaison aircraft.

On September 6, 1976 two F-4EJ's of the squadron were scrambled from Chitose to intercept the MiG-25 of Viktor Belenko who had flown into Japanese territory to defect. They were unable to intercept him, which led to changes in the Japanese air defense system.

On November 26, 1985 the squadron transferred to Naha Air Base in Okinawa.

On December 9, 1987 an F-4EJ operated by the squadron flying from Naha fired warning shots on two occasions when a Tupolev Tu-16 of the Soviet Air Force entered Japanese air space over Okinawa. This was the first time an SDF fighter had fired warning shots at an intruding aircraft.

In 1992 the T-33A trainers were replaced by Kawasaki T-4 aircraft.

In 1995 the squadron finished upgrading to the F-4EJ Kai (improved) version.

In November 2007 the JASDF's F-15 Eagle

F-4EJ Kai in 7th Air Wing's 40th anniversary livery (2012)

F-4EJ kai (401) of 302 Sqn displayed at Yokota Air Base Friendship Festival 2009.

fleet was grounded. During this time the squadron's F-4s were required to scramble.

On March 13, 2009 the squadron finished relocating from Naha Air Base to Hyakuri Air Base in Ibaraki prefecture north of Tokyo, swapping with the F-15J equipped 204th Tactical Fighter Squadron which moved to Naha. Following this, on March 26 of the same year the 302nd was transferred to the 7th Air Wing of the Central Air Defense Force.

In January 2016 after North Korea claimed to have exploded a hydrogen bomb, a squadron T-4 aircraft was one of the aircraft were used to test for radioactive particles. The flights were done for around 14 days. The flights did not detect any radioactive particles.

The tail marking of F-4EJ Kai 97-8420 at the 2016 Hyakuri Air Show

As the sole remaining F-4 fighter squadrons, either the 302nd squadron or the 301st was expected to be the first JASDF squadron to operate the Lockheed Martin F-35A Lightning II. In August 2017 it was announced that the 302nd squadron would be the first in the JASDF to transition to the F-35.

On October 18, 2017 F-4EJ Kai Phantom II 87-8408 of the squadron caught fire on the ground after its landing gear malfunctioned. There were no injuries.

The squadron ceased flying the F-4 in March 2019, and in the same month relocated to Misawa Air Base.

On April 9, 2019 an F-35A of the squadron went missing over the Pacific Ocean.

Tail Markings

The squadron's emblem is a stylized image of a white-tailed eagle, a raptor which resides in Japan. It is famous among JASDF fighter squadrons as being the largest tail marking. There is a rule that a squadron's tail marking cannot be larger than the Hinomaru used as a roundel by Japanese military aircraft, but this rule did not exist when the 302nd's emblem was created. The eagle is designed to resemble the squadron number, with the wings having three lines, the tail being a zero, and the two feet completing the number.

Text courtesy of Wikipedia https://en.wikipedia.org/wiki/302nd_Tactical_Fighter_Squadron_(JASDF) ■

c/n M113 Having been broken up during the day, the discarded nose of 87-8413 lays behind 87-8414, which will soon suffer the same fate. Hyakuri Air Base, Omitama, Ibaraki Prefecture, Japan

KAMAN SH-2G SUPER SEASPRITE IN NEW ZEALAND SERVICE

The Kaman SH-2G Super Seasprite is an American ship-based helicopter with anti-submarine, anti-surface threat capability, including over-the-horizon targeting. This aircraft extends and increases shipboard sensor and weapon capabilities against several types of enemy threats, including submarines of all types, surface ships, and patrol craft that may be armed with anti-ship missiles. It was originally developed for the United States Navy in 1980s as a reengined version of the older Kaman SH-2 Seasprite.

The SH-2G's primary missions include anti-submarine and anti-surface warfare, anti-ship missile defence, and anti-ship surveillance and targeting. Secondary missions may include medical evacuation, search and rescue, personnel and cargo transfer, as well as small boat interdiction, amphibious assault air support, gun fire spotting, mine detection and battle damage assessment.

In New Zealand Service

The Royal New Zealand Navy (RNZN) replaced its Westland Wasps with four interim SH-2F Seasprites (ex-US Navy), to operate

A Royal New Zealand Navy SH-2G(I) in 2016.

A Royal New Zealand Navy SH-2G.

with Anzac-class frigates until the fleet of five new SH-2G Super Seasprites were delivered. The Navy air element was transferred to No. 6 Squadron RNZAF at RNZAF Base Auckland in Whenuapai in October 2005. RNZN Seasprites have seen service in East Timor.

New Zealand purchased five SH-2Gs at the same time as Australia. However, New Zealand opted for new-build airframes that were outfitted with different avionics. The SH-2G purchase was completed at NZ$12 million under the $338 million budgeted (excluding GST). The first RNZN SH-2G(NZ) was delivered in mid-2001, and the last was delivered February 2003. The Royal New Zealand Navy (RNZN) operates the type from its two Anzac-class frigates, two Protector-class offshore patrol vessels, and the multi-role vessel HMNZS Canterbury. They were initially operated by the Naval Support Flight of No. 3 Squadron RNZAF, but now from No. 6 Squadron RNZAF.

In May 2012, Defence Minister Jonathan Coleman announced that Cabinet had given Defence officials approval to negotiate with Kaman Corporation for the 11 helicopters and flight simulator from the cancelled Australian SH-2G(A) Super Seasprite project. It is thought the 11 helicopters, worth NZ$1.4 billion in 2008, would cost New Zealand between NZ$130 million to NZ$230 million. A decision to purchase ten of the helicopters for $NZ242 million was announced on 19 April 2013. Eight of the aircraft will enter service with the RNZAF to replace the existing five Seasprites, and the remaining two will be used as a source of spare parts.

The New Zealand Ministry of Defence accepted the first of the helicopters in the United States on 1 December 2014, and two more were delivered to Auckland in early 2015. Deliveries were completed by the end of 2015. All the aircraft were in service by 2016. The NZDF's five SH-2G(NZ) Seasprites were officially retired on 14 April 2016, and conducted their last flight on 21 April after serving since August 2001. They were replaced with eight re-manufactured SH-2G(I) models, allowing the Navy to embark up to three helicopters from ships at once instead of two. The "I" model also replaces the AGM-65 Maverick with the AGM-119 Penguin anti-ship missile.

New Zealand's five SH-2G(NZ) models were sold to the Peruvian Navy in October 2014 and replaced by the eight SH-2G(I) models. ■

One of the eight SH-2G(I) Seasprite maritime helicopters, operated by No. 6 Squadron.

A Royal Australian Air Force C-27J Spartan aircraft arrives in Broome to provide a transport capability in the Kimberley Region during Operation Flood Assist 23-1.

A Royal Australian Air Force C-27J Spartan aircraft takes off from RAAF Base Amberley in Queensland, bound for Western Australia.

RAAF OPERATION FLOOD ASSIST 23-1

The Australian Defence Force provided assistance to the Western Australian Government in the Kimberley Region where heavy rainfall from Ex-Tropical Cyclone Ellie isolated communities. At the request of the National Emergency Management Agency (NEMA), Defence provided transport aircraft and helicopters to assist in the evacuation of flood-affected residents. ■

Personnel from various Western Australian Government Agencies on a Royal Australian Air Force C-130J Hercules aircraft on the way to assist flood-affected residents in the Kimberley region.

F-16 IN BELGIAN SERVICE

Of the four original NATO partners. Belgium was the largest initial buyer of the F-16. Its aeronautical company, SABCA, was a primary producer of the aircraft as part of the partnership.

Belgium's initial order included 116 F-16A/B aircraft in blocks 1, 5, 10, and 15. Delivery began in 1979, and was completed in 1985.

A follow-on order for 44 F-16A/B-15OCU aircraft was completed in 1991.

Most Danish F-16s were also manufactured in Belgium. Many of the Belgian and Danish F-16s received the MLU update at SABCA. ■

An MLU upgraded two-seater F-16B in Belgian service.

Unique tail art featuring a rusty tiger.

A Belgian MLU upgraded two-seater F-16B in commemorative D-Day stripes.

F-16 accidentally blown up by a Belgian Air Force mechanic.

TWO-SEATER HARRIERS

NICK GREENALL, IPMS (UK) HARRIER SPECIAL INTEREST GROUP, SUMMARISES TWO-SEATER HARRIER VARIANTS

Two-seat Harriers were operated for training purposes.

The body was stretched and a taller tail fin added.

The RAF trained in the T.2 and T.4 versions, while T.4N and T.8 were training versions the Navy's Sea Harrier, with appropriate fittings. The US and Spain flew the TAV-8A and TAV-8S, respectively.

Variants are as follows:

- Harrier T.2 - Lengthened two-seat training version for the RAF, powered by Pegasus Mk 101 engine. Development Builds XW174-XW175 and first batch XW264-XW272 fitted with the short fin. XW925-XW927, XW933-XW934 had the tall fin which had been trialled on XW175. All had the pointed tail-sting.
- Harrier T.2A - Upgraded T.2, powered by a Pegasus Mk 102. No external airframe changes.
- Harrier T.4 -Two-seat training version for the Royal Air Force, equivalent to the GR.3, with Pegasus Mk 103 engine. Serials: XW175, XW265-XW272, XW925-XW927, XW933-XW934 upgraded T.2As; fourteen new builds XZ145-XZ147 (tall fin), XZ445, ZB600-ZB603, ZD990-ZD993. Laser seeker nose and radar warning receivers on fin and the tail-sting fitted to non-T.4A airframes.
- Harrier T.4A - T.4 without laser seeker nose or radar warning receiver tail-sting but with the (empty) fairing on the fin. Being lighter these were used for flying training only. Serials: XW175, XW265-XW266, XW268, XZ147, XZ445, ZD990.
- Harrier T.4N - Two-seat training version for the Royal Navy, with avionics (excluding radar) based on Sea Harrier FRS.1, active RWR on the fin and in the tail-sting. Serials: XW266-XW268, XW927, ZB601, ZB603, ZD992 upgraded from T.4/ T.4A. ZB604-ZB606 were new build T.4Ns.
- Harrier T.4(I) - Conversion of ex-RAF T.4 airframes by BAE Systems, for the Indian Navy. Attrition replacements for India's Harrier T.60. Delivered from May 2003;

A Hawker Hunter T8M, Sea Harrier FRS1 and a Sea Harrier T.4 celebrating 50 years of 899 NAS in 1994

This Harrier T. was restored over 12 months by Jet Art Aviation Ltd in Yorkshire, and has been returned to the markings it wore with 4sqn as part of RAF Germany. c/n 212008. On display at the Caernarfon Airworld Museum. Caernarfon Airport.

Hawker Siddeley Harrier T.2 cockpitt, XW264.

included IN655 with a laser nose.

- Harrier T.8 - Naval trainer modified fitted with Sea Harrier F(A).2 avionics plus the Doppler panel bulge ahead of the front undercarriage bay. Upgraded airframes: ZB603-ZB605, ZD990-ZD993.
- Harrier T.52 - Two-seat company demonstrator of an export variant of the T.2, originally Pegasus 102 powered but uprated to Pegasus 103 following an accident in 1971, one built first flown 15 September 1971; registered G-VTOL. As a non-military airframe it had civilian avionics fitted, hence the extra aerials on the upper fuselage.
- Harrier T.60 - Export version of the T4N two-seat training version for the Indian Navy. Serials: IN651-IN654.
- TAV-8A Harrier - Two-seater training version for the USMC, powered by a Pegasus Mk 103. Company designation Harrier Mk 54. Eight built. Serials: 159378-159385.
- TAV-8S Matador - Export version of the TAV-8A Harrier for the Spanish Navy. Later sold to the Royal Thai Navy. Spanish Navy designation VAE-1 Matador. Company designation Harrier Mk 54. Serials: 159563-159364.

The important thing to remember is that from T.2 to T.4 the designation was determined by the type of Pegasus fitted and NOT the airframe shapes!

Adapted from Wikipedia with input from Nick Greenall, IPMS(UK) Harrier Special Interest Group

More details are available from the Harrier SIG, IPMS(UK): https://ipmsuk.org/directory/harrier/ ■

Harrier T.8, ZD 992.

AID TO TURKEY

A Royal Air Force A400M Atlas aircraft has delivered aid to Turkey following the Kahramanmaras earthquake.

The transport aircraft, operated by No. 30 Squadron, RAF Brize Norton, landed at Kahramanmaraş Airport and successfully delivered 8 pallets of aid to the country, containing blankets. The support will be used to urgently provide life-saving interventions to those who need it most in the region as temperatures plummet.

The UK sent a field hospital and C130 Hercules critical care air support team and aircraft to help provide vital emergency treatment to those critically injured by the catastrophic earthquake in Turkey. This comes on top of key personnel arriving at the British Embassy in Ankara and a A400M RAF transport plane departing tonight carrying humanitarian aid, including thousands of thermal blankets to keep survivors warm in sub-zero temperatures.

The field hospital, which includes an emergency department, 24/7 operating theatre, and accompanying clinical staff, deployed to support the post-earthquake response in country.

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TRANSFER LIST

HOUSE OF PHANTOMS

www.shopofphantoms.com

What an excellent name for an organisation. They have sent another outstanding 1:48 Phantom decal set for review. The House of Phantoms is part of the Double Ugly/AirDOC organisation in Germany. See houseofphantoms.com for their range of decals, kits, books and accessories.

This is the third set of Phantom decals from the House of Phantoms. The first was for the USAF's fancy F-4Ds and the second for German Air Force F-4Fs in the Norm 81A/1B camouflage. This sheet comes along as new 1:48 USAF F-4E kits are appearing. Meng's new one is due any minute as this review is being written, Zoukei Mura's with the short gun under the nose was released not too long ago. Hopefully, Z-M will release a USAF F-4E in its later format. This would not be a huge step from their excellent F-4EJ kits.

This new set consists of a large (A4+) decal sheet of the main markings, a smaller sheet of black stencilling and two small 'add-on' sheets of TFS lettering and crew names and hoist symbols (similar to question marks). The instructions cover 14 A4 sheets, colour printed both sides. All the Phantoms in this set carry the Ramstein RS tail codes and span the years from 1971 to 1986 with 20 aircraft to choose from.

USAFE Phantoms Part 1 (Ramstein Based F-4E of the 86th TFW and 26th TRW) (Sheet No. HoPD 48003)

Here is a list of the Phantoms on offer. Most of the Phantoms carry versions of the old Vietnam/South East Asia camouflage pattern of two Greens (FS 34102 and FS 34079) and Tan (FS 30219) with Light Gray (FS 36622) undersides. Towards the end of the F-4Es service, the aircraft had the Europe 1 camouflage scheme applied where the Tan was replaced with Gunship Gray (FS 36118).

01 F-4E 69-0247 with the 526th TFS "Black Knights" at Ramstein in October 1971. This example still carried the short gun muzzle under the nose as provided in the first Zoukei Mura F-4E kit that only had one decal option in the box. The camouflage scheme was SE Asia and Light Gray undersides.
02 F-4E 68-0534 in September 1972, all details as 01 above.
03 F-4E 69-0250 in March 1972, all details as 01 above.
04 F-4E 74-1649, a Ramstein Phantom but as seen at the William Tell Weapons Meet at Tyndall AFB in Florida in October 1978. This Phantom carried the long gun muzzle under the nose and was in the SE Asia wrap-around camouflage pattern.
05 F-4E 68-0441 in the summer of 1971. The SE Asia camouflage scheme applies with Light Gray undersides. This Phantom was with the "Black Knights" and had the

longer gun muzzle that applies to all the following F-4Es.
06 F-4E 68-0393 with the 512nd TFS “Dragons” when attending the “Tactical Fighter Meet 80” in July 1980. The scheme was the SE Asia pattern with Light Gray undersides, a shark’s mouth on the nose and a large letter “D” on the tail fin.
07 F-4E 69-0249. All details as 06 above but with a large “C” on the tail fin.
08 F-4E 68-0512 at Ramstein in September 1983. This was the “Dragons” CO’s personal aircraft and was in the SE Asia wrap-around scheme.
09 F-4E 68-0386 when visiting Zagaoza AB in Spain in July 1983 in the SE Asia scheme with Light Gray undersides and 86th TFW lettering on the tail fin.
10 F-4E 68-0509 with the 512nd TFW, the Squadron Commander’s aircraft in the SE Asia wrap-around scheme.
11 F-4E 68-0386 back at Ramstein in July 1983 carrying the Wing Commander’s markings on the SE Asia wrap-around camouflage scheme.
12 F-4E 68-0480 when taking part in the Royal International Air Tattoo at Greenham Common in July 1983. A large shark’s mouth was applied to the nose on the SE Asia wrap-around scheme.
13 F-4E 68-0531 with the 526th TFS at the ranges on Sardinia in March 1884 in the SE Asia wrap-around scheme.
14 F-4E 68-0467 with the “Black Knights” at the Tactical Air Meet 84 in Holland in June 1984. The scheme was the standard SE Asia wrap-around camouflage pattern.
15 F-4E 68-0517 with the “Black Knights” when visiting Moron AB in Spain in January 1986. The SE Asia wrap-around scheme was applied.
16 F-4E 68-0531 with the “Black Knights” when on Exercise Zulu Alert at Ramstein in May 1984. The wrap-around SE Asia scheme was applied.
17 F-4E 69-0264 with the “Black Knights” visiting Moron AB in Spain in January 1986. This Phantom was in the Europe 1 wrap-around camouflage scheme.
18 F-4E 68-0381 with the “Black Knight” when on Zulu Alert at Ramstein in September 1985 in the Europe 1 wrap-around camouflage scheme.
19 F-4E 69-0264 with the “Black Knights” “The Last Phantom” at the F-4E Fly-Out at Ramstein in June 1986. The Europe 1 scheme applies. The RS base lettering had been removed from the tail fin.
20 F-4E 69-0264 with the “Black Knights” with “The Last Phantom Knight” legend applied to both sides of the nose. The scheme was wrap-around Europe 1 in May 1986.

The following four instructions sheets are covered in camouflage pattern and stencilling placement instructions. As usual on Phantoms, the airframe is covered with stencilling, providing hours of decal application entertainment for the dedicated who accept the challenge.

This is a stunning set. We really can’t see how it could be better. For placing orders, see their web site: houseofphantoms.com and you can take a close look at the instructions by following the link. Thanks to House of Phantoms for sending their new decal set for review. Hannants also carry stocks of this sheet. We are eagerly awaiting Part 2. ■

Alan Firbank

IN PRINT

WING LEADER PUBLICATIONS

Supermarine Spitfire Mk IX In RAF Service, NW Europe and the Med – (Photo Archive No. 20)

www.wingleader.co.uk

- By Simon W Parry
- Published by Red Kite/Wingleader
- Guide Price £19.95
- ISBN: 978-1-908757-32-6
- 72pp softback, 210 x 297mm

This is book Number 20 in the rapidly expanding Wingleader Photo Archive series of great books of modeller's reference material. These books all cover popular model subjects such as the Bf 109E series, Stirling, Lancaster and Hawker Typhoon. Now, we have perhaps the most famous aircraft from WWII, certainly in the eyes of the British. This book comes as the result of many requests from modellers visiting the Wing Leader stand at Scale ModelWorld at Telford last November for the addition of a Spitfire Mk. IX profile to the Photo Archive Series. The author of this latest addition to the Photo Archive series is Simon W Parry who produces the outstanding Battle of Britain history series that is nearing the completion of the in-depth, day-by-day, hour-by-hour account of the Battle of Britain. It sounds like Simon returned from Telford, cleared his desk and began working on this book.

Mark IX Spitfire kits have been released at a steady rate for years and Airfix's release of a 1:24 kit is the impressive latest one to add to the list. While the first finished kits narrowly missed being on sale at Telford, we did see a handful of excellent built examples on the

SAMPLES FOR REVIEW
Please send all items for review to the following address: Model Airplane International, Doolittle Mill, Doolittle Lane, Totternhoe, Bedfordshire, LU6 1QX, United Kingdom. Companies in the European Union should also add our VAT number, which is GB 789 7020 84

Airfix stand at the show. So, it was not a surprise to see the number of requests for good photographic references that we see in this book.

We have 72 pages of photos and information that will be ideal to have on your work bench when building and painting a Mk IX kit. Most pages have at least two photos and informative captions. While the vast majority are in black and white, we see a few in colour and then there are the superb colour artwork profiles. Each profile shows a page width side view with smaller upper and lower views to show camouflage patterns, etc. Notes next to the illustrations point to particular features on the Spitfires illustrated with notes on colours, units, and pilots. Each colour profile is of a Spitfire featured in the photos. It is useful to see the different finishes on the Spitfires, some looking tired and well-used and some shiny and pampered. It is also interesting to see the differences in camouflage application, some sprayed and some applied with hard edges between the top-side colours. Weathering on the wings is shown clearly in the photos.

Various areas of the Spitfires are shown in sections following the opening Evolution section. This opener is following by Wings, inside and out, then Fuel Tanks. A section on the Engine and Cowling provides especially useful photos of this area that is a prominent feature of the new Airfix kit and Tamiya's 1:32 Spitfire series. Many photos show Spitfires being worked-on by ground crew, maintaining and arming their planes. A section describes the painting of D-Day stripes, done fairly roughly in the hours before the invasion. Stripes were applied neatly later to new aircraft before delivery to squadrons.

The final section takes a look at Mk IXs operating in the Mediterranean Theatre in the scheme of Dark and Mid-Stone on the upper surfaces with Azure Blue undersides. Again, the photos are excellent, showing the aircraft in their working environment. These would turn into good diorama subjects with the local dogs and cattle roaming around the aircraft. If you have a Mk IX to build or just simply love the Spitfire, look out for this book.

This latest addition to the Wingleader Photo Archive series is another that will be ideal for aircraft modellers. These books are building into a great reference series for those building WWII aircraft showing the planes in their working environment. We are looking forward to bringing you news of the next volume that will no doubt be along in the next two or three months. Highly recommended.

Thanks to Wingleader for sending their latest Photo Archive volume for review. See their web site: wingleader.co.uk for ordering this or previous books in this series. Also, Avid Reader/Bookworld Wholesale are the UK distributors of Wingleader titles, see their Avid Reader stand at model shows or their web site: bookworldws.co.uk

TAMIYA INC

Tamiya Catalog 2023 (English/German/French/Spanish)

www.tamiya.com

- Published by Tamiya Inc.
- Guide Price £16.99
- ISBN: N/A
- 84pp softback, 257 x 260mm

Outside, there are signs of spring, the daffodils are nodding in the breeze as the current snowfall covers them. Inside, there are also signs of spring, the annual Tamiya catalogue has landed.

Hopefully, describing Tamiya as the best main-stream kit manufacturer in the world is not a contentious observation but the fact that Tamiya publishes the best annual catalogue is evident. As well as a shop window for Tamiya's products, it is also an exhibition of some superb model-making.

The book begins by show-casing the superb 1:48 F-35A Lightning kit that appeared a couple of months ago, so the content of the catalogue is pretty much up-to-date as of early January this year. Something to note is that we can see the kits that are dropping out of production for the time being. One such example is the P-38 Lightning series. The P-38J is still present but the others have dropped out for the moment. So should you want one of the other P-38 Lightnings, grab one now as they will be gone soon.

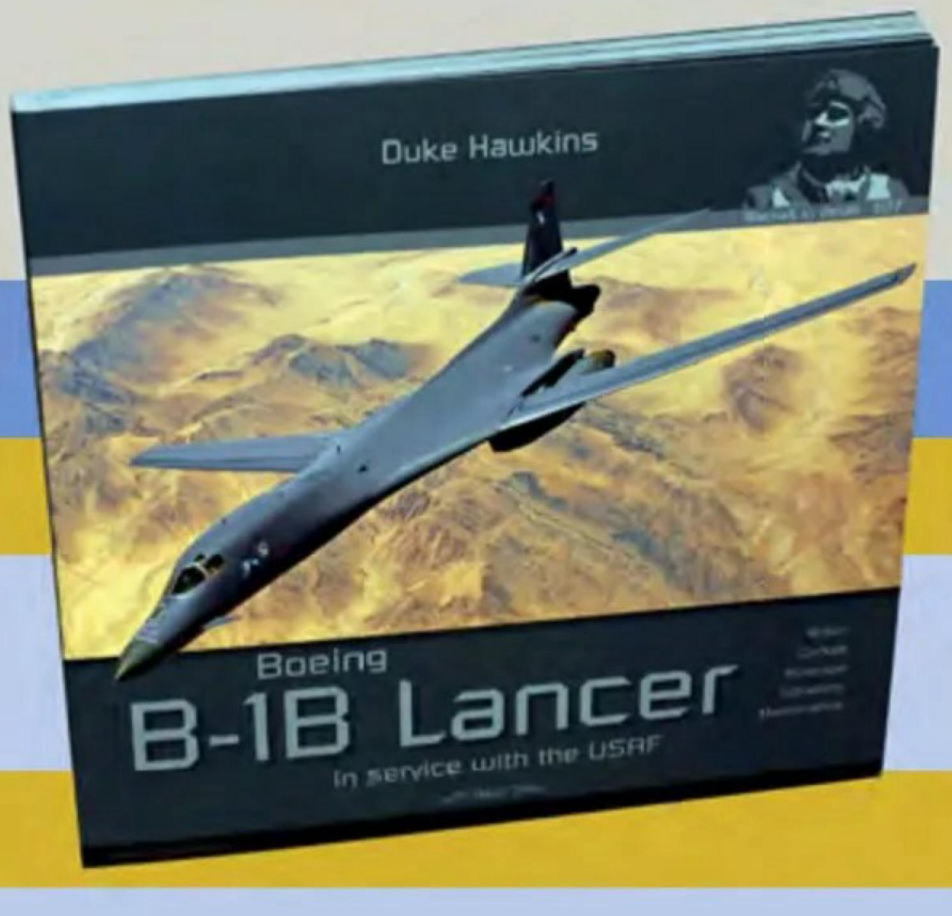
As well as the ranges of aircraft, 1:48, 1:32 and 1:72 the large numbers of armour kits follow with long lists of 1:35 and 1:48 kits and the superb 1:16 tanks in static and radio-controlled versions. Then come the cars, motorbikes and ships. Bringing-up the rear are the pages of radio-controlled 1:14 truck kits and accessories. Of interest to all modellers are the pages of tools, glues and paints.

Grab a copy of the Tamiya catalogue from your local Tamiya-stocking model shop to see the vast range of product on offer. Most items will be available in the UK. Our copy was sourced from Hannants.

DUKE HAWKINS

Boeing B-1B Lancer

www.hmh-publications.com



- By Duke Hawkins with Dave Chng
- Published by H.M.H. Publications
- Guide Price £32.99
- ISBN: 978-2-931083-20-8
- 176pp softback, 240 x 240mm

This month we introduce No.27 in Duke Hawkins' Aircraft in Detail Series, another iconic jet, the mighty B-1B, the Bone as it is affectionately known, one of my personal favourites. It is amazing to know that the B-1 is coming up to the 50th Anniversary of its first flight as the B-1A next year, entering service in 1984 as the B-1B. The B-1A programme was cancelled and it looked like the B-1 would stall before progressing far until the programme re-started in 1981 as a high-speed low-level bomber rather than the original hi altitude original.

From the Bone's introduction into service it has gone through modifications keeping the avionics and weapons fit up to date. Some of the mods appear on the exterior of the aircraft with various lumps, bumps and aerials so it is great that this book takes a close look at the B-1B from all angles so that we can update kits that may have been left behind as time passes. One such example is the massive 1:48 Revell kit. Although the original kit has been updated to a degree, not all current features are included in the box but some are available as after-market items.

This latest Aircraft in Detail book from Duke Hawkins does not strictly follow the usual pattern, moving from the nose to the tail in defined sections. However, the layout is easy to follow, starting with the forward fuselage and ending with an In Action chapter. Dave Chng who has produced most of the photos has been given amazing access to the aircraft, outside and in. Although I have had my head inside the bomb bays when on a visit to a deployment to RAF Fairford, my camera had to remain with the lens cap in place. Dave Chng has been able to take lots of photos of the insides of the bomb bays and all around the undercarriage bays, legs and wheels.

Best of all, he was able to take many photos inside the cockpit and the weapons operator's stations. Adding such detail to a model may be the choice of a handful of modellers, it is all nevertheless very interesting to the rest of us.

Whatever scale you build the masses of exterior photos will be invaluable. B-1Bs are generally finished in overall Gunship Gray but as can be seen in the photos, the appearance varies to a great degree. One Bone has much of its Gunship Gray badly faded from being parked outside in the strong sun but with large sections in fresh paint. Although weathering is not generally obvious some interesting worn areas can be seen in the photos. If you should fancy modelling a bare-metal B-1, there is photo of one on a test flight during a major maintenance session. A few photos showing crew around the aircraft show what a massive piece of kit this is.

Towards the end of the book, we see some great photos of removed engines. Not many will be looking to scratch build an engine but the photos of the outsides and insides of the jet pipes will be useful to many modellers. Also useful is the section on weapons carried by the Bone. The same may not apply now but when I looked around a B-1 at Fairford it could carry any of the USAF's air-to-ground weapons. B-1s have been kept busy from when they entered service where live munitions have been required.

This another outstanding addition to the Duke Hawkins aircraft profiles and is a must for anyone with a kit to build. It reminds me of the days when USAF bases held open house air shows in 'the good old days'. I remember one B-1 crew raised the eyebrows of a very senior USAF commander when they concluded their display at Mildenhall by performing a roll with burners lit and wings swept as they departed the area. It was reported that they were 'spoken to' after returning to the airfield.

This book can be bought from the usual specialist book suppliers such as the Aviation Book Centre and Bookworld Wholesale (Avid Reader) and Hannants also stock Duke Hawkins' books.

REID AIR PUBLICATIONS

The Modern Super Hornet Guide – 2nd Edition – The Boeing F/A-18E/F & EA-18G Exposed

www.reidairpublishing.com

- By Jake Melampy
- Published by Reid Air Publications
- Guide Price £44.90 (US $39.95)
- ISBN: 978-0-9888529-9-0
- 178pp softback, 280 x 218mm

With Super Hornet kits coming at us from all directions, I did not hesitate to order a copy of this 'new' profile to introduce to our readers. This is a revised edition following the first edition published in 2011. Although this second edition was published in 2020 it has only recently appeared on this side of the Atlantic, no doubt caught up in all the covid pandemic fallout. I notice that the book has grown by 10 pages and by ten more of our hard-earned pounds. Having pointed out the new price, it is still cheaper than many of the larger scale Hornet kits that are currently available.

This second edition has a much-improved cover for a start. From opening the book, we are faced with over 1,000 amazing photos. Some of the photos have been swapped for new ones. During the decade that has elapsed from the first to the second edition detail items of equipment have changed and new squadrons have taken on the Super Hornet so the book is as current as possible.

Each page is covered with photos, wide views and close-up detail of every nook and cranny of the Hornet. The photos have captions that explain what we seen in the images in detail so there is enough for the technically minded as well as the casual viewer. For example, the main undercarriage and wheels are covered on three pages of close-ups. I remember the head scratching when trying to work out where some of the undercarriage parts should be attached when building the Hasegawa 1:48 kit. This book would have explained everything in the blink of an eye. If you routinely add weathering to undercarriage legs may thing twice on seeing how clean they are on the real thing. Those who like to add wiring and plumbing to landing gear legs will be in no doubt where everything goes. The same applies to wheel well interiors. Even the busy-looking kit wheel wells are very sparse compared to the complicated real thing. Those two arrays of tubes on the upper fuselage, between the tail fins are explained and compared with the earlier, plainer outlet slots.

One area where we aircraft modellers look for as much help as possible is the cockpit interior and surrounds. Here we have about 30 pages of photos of instruments, seats, consoles, etc. So, no need to look any further for help in this area. Both cockpits in the case of the F and G models are covered in equally fine detail.

Another area that is often vague in kits and instructions is the wing fold. Here again, all is revealed in the detailed photos. This book also covers the various pods, external fuel tanks and weapons in fine detail. This is another area that is often vague in kit instructions. Help with colours and wear and tear is also very welcome for those who wish to show this fine detail. The last pages are covered with photos of the US Navy units that fly the Super Hornet. The list is surprisingly long with about 20 pages covered with photos of planes from each unit at the time of writing. Some of these will be giving up their Hornets for the F-35C in the not-too-distant future. It is a shame that we only get the most fleeting glimpses of Australian Hornets.

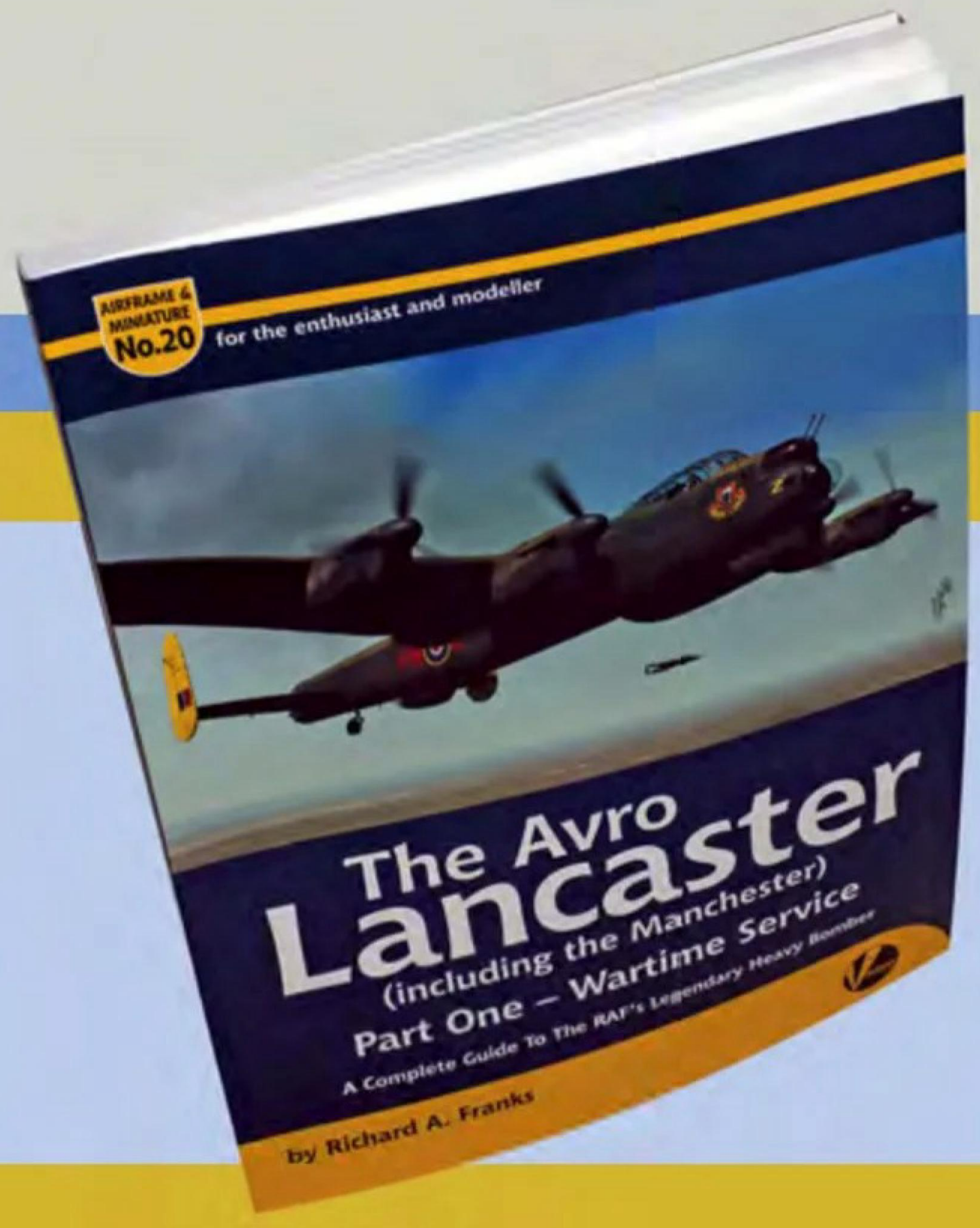
If you are thinking of building a Super Hornet kit, then this book is a must. As well as being very interesting in its own right, you will find that you will be able to build your model with all questions answered somewhere inside this book. I cannot recommend it highly enough.

My copy was bought from the Aviation Book Centre who offer an excellent on-line service and appear occasionally at model shows. See their web site for availability and their extensive range of aviation and military titles.

IN PRINT

VALIANT WINGS PUBLISHING LTD

The Avro Lancaster (including the Manchester) Part One – Wartime Service (A Complete Guide to the RAF's Legendary Heavy Bomber) Airframe & Miniature No. 20



www.valiant-wings.co.uk

- By Richard A. Franks
- Published by Valiant Wings Publishing Ltd
- Guide Price £28.95
- ISBN 978-1-912932-17-7
- 272pp softback, 297 x 210mm

We have been looking forward to the arrival of this book from the day it was announced. There was little doubt that this new book would be the 'go-to' reference for anyone about to build a Lancaster kit. New Lancaster kits have been appearing regularly over the last three or four years with new ones aimed at builders of the larger scales. As well as those available, the 1:72 Airfix Dambusters Lancaster kit makes its appearance very recently, in time to commemorate the Dams Raid's 80th Anniversary, Operation Chastise, on the night of 16/17th May 1943.

Those readers who own one of the previous Airframe & Miniature books will be familiar with the layout and this new edition follows the set pattern. Production is again to the same hight standard, beautifully printed on art paper and lavishly illustrated from beginning to end. At the end of the book there is a set of 1:72 scale plans, printed on an 8pp fold-out section glued inside the back cover.

As usual, this book opens with the Preface, starting with the state of the bomber business in the late 1930s, as well as the RAF, the situation with the Luftwaffe is examined. A photo shows the Handley Page Heyford that is still in squadron service in 1938. Compare this with the early B-17 in the States and the sleek Dornier Do 17 and early He III with the German forces. We had a lot of catching up to do.

We move on to the development of the Avro Manchester that entered service on the 1st November 1940. Although looking very similar to the Lancaster, the Manchester had many failings and would only last two years in service before being gradually replaced by the Lancaster in the last week of 1941. Richard Franks then goes on to list the units that flew the Lancaster until the end of the war in May 1945 giving units, locations, dates and squadron codes. Again, with lots of photos. Many of the RAF stations mentioned here are now almost forgotten, just know to those who live near the sites of the old airfields that have been returned to agricultural use or housing estates.

A section of the Preface is dedicated to Special Operations, of course, The Dambusters, 617 Squadron is described in several pages for not only the dams raid but the other special bombs that they used following the dams raid. One photo shows a neat hole in the thick reinforced concrete roof of a submarine pen where a Grand Slam bomb passed through to explode and destroy the interior.

Chapter 1 describes the Evolution of the Manchester with diagrams and notes. It is interesting to see that the first Manchesters did not have the familiar 'shark's fin' on the rear fuselage. Then we move on to the development of the Lancaster, the addition of

two more engines and other changes would be a massive leap forward in heavy bomber design and would result in the best heavy bomber of WWII. About 40 pages are used to describe the evolution of the Lancaster through the various versions built through to the end of WWII.

We then move on to the Camouflage and Marking chapter, illustrated with many Richard J. Caruana's superb colour side profiles with the notes describing how markings on the airframe would evolve. The first few pages illustrate the Manchester and then the rest of the chapter shows many Lancaster squadron's aircraft and concludes with a useful list of squadrons and their code letters.

Chapter 7 begins the dedicated part of the book for modellers with an appraisal of Manchester and Lancaster kits. They range in size from 1:144 to 1:32 with a massive 1:24 vac-form basic kit briefly mentioned. This section concentrates on the kits that you might be able to lay your hands on at the moment, in some cases maybe after a diligent search. Towards the end of this chapter there is a good look at the recent Border Models 1:32 super-kit and even the Meng 'cartoon' Lancaster kit.

Chapter 8: Building a Selection begins with the brave Steve Evans taking on a conversion of the 1:72 Airfix Lancaster and turning it into a Manchester using the Blackbird Models conversion set. Steve Evans describes the process in words and pictures and it takes only a minute or two to work out that this project is not for the feint-hearted. The second 1:72 build is the much more straight forward Hasegawa kit of the Grand Slam Lancaster. Next, we move up the scale to the HK Models 1:48 B Mk.1 kit and then on to the vintage Tamiya kit that amazingly is now 47 years old. Despite it being so ancient, it still compares well with the new HK Models kit. Those hoping to see a blow-by-blow look at the Border Models 1:32 will have to wait a short while for a Valiant Wings book dedicated to the super-complex and super-expensive kit.

Chapter 9: Building a Collection follows the familiar pattern with 34 pages of diagrams and notes on how, first the Manchester and then the Lancaster changed through its various versions. Some of the versions will see minor changes to aerials, etc. others drastic such as the ones with radial engines when it was feared that Merlin engine production would not keep pace with Lancaster production.

Chapter 10: In Detail takes a look at the Manchester and Lancaster in minute detail over the next 62 pages. Unsurprisingly, most of this section is on the Lancaster. We see many diagrams and photos of the aircraft inside and out. Those building a kit will find much in the chapter to help with a build, especially if looking to super-detail their project. Diagrams of the turret interiors for example, will be very useful if tackling the Border Models 1:32 kit where the turrets are a kit in themselves.

Bringing up the rear is the Appendix sections with the familiar lists of kits, decals, accessories and finally, books. The list of books does not include those telling the stories of specific raids such as Chastise by Sir Max Hastings, a superb analysis of the Dambuster's raid or the many biographies and auto biographies by Lancaster crew. Chastise is well worth reading, giving the Dams Raid and its aftermath close-scrutiny.

If I were wearing a hat, I would be tipping it at Richard Franks and the Valiant Wings team for producing this superb aircraft profile. Whether you are an avid modeller or a WWII aviation enthusiast, you will find this book will keep your attention for many an hour. Any Lancaster kit build will be aided for having this book next to your modelling bench. All the Valiant Wings books are highly recommended.

Many thanks to Valiant Wings for supplying their latest title for review, just in the nick of time to catch this issue of MAI. Now we are looking forward to Part Two.

Alan Firbank
March 2023

845 NAS CONDUCT FLYING TRAINING ON OPERATION CLOCKWORK

Merlin Mk.4s of 845 Naval Air Squadron (845 NAS) have conducted a two-ship flying serial whilst deployed on OPERATION CLOCKWORK (OP CLWK).

845 NAS deploy to Op CLOCKWORK (OP CLWK) every year to train and test their people and equipment to operate in the harsh arctic winter conditions, in particular for the aircrew to gain/refresh their Environmental Flying Qualifications (EQ).

During this busy time, 845 NAS will also be involved with other training such this. Op CLWK (Formally Exercise CLOCKWORK) has been running at Bardufoss for over 50 years and delivers Environmental Flying Qualifications, Cold Weather Survival, Tent Group Commanders and Snow and Ice driving courses to ensure that the personnel of the Joint Helicopter Command (JHC) are trained to operate in the harshest of environments. ■

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TRANSFER LIST

EAGLE CALS

www.eagle-editions.com

EagleCals has released two new sets of decals to meet demand and offer some variety with Airfix releasing their very large Spitfire Mk.IXc model. This review will look at the 2 latest offerings.

EagleCals is renowned for both the quality of their decals and the level of research that goes into their production. With these two sets they have again kept the quality forthcoming. Both sets are nearly identical with the content with the #185 set having a slightly smaller second sheet of decals. In all other aspects what you get in the set is the same contents. Be aware that some of these decals are large, especially the roundels and gives you (and me who hasn't actually seen one in person yet) some idea of how big the model will be.

Each of the sets supplies a full set of data stencils and a choice of 2 schemes. The instruction sheet of each set, is a double sided A3 sheet with one side totally in black and white with the data stencil positioning layouts with 4 views covering port and starboard side profiles as well as upper and lower views. Positions for each decal are shown clearly with adequate panel lines to guide you. The other side has 2 large colour side profiles and some smaller upper and lower profiles. One section, when the sheet is folded is the coversheet for the set.

The coloured decal sheets are printed by industry leader, Cartograf of Italy, which ensures top printing quality and ease of application. Colour call outs for the painting of your model are in the detailed notes for each of the aircraft on the black and white side.

And now it's on to the choice of schemes:

#182 Set
One sheet of decals 20 x 13cm. One sheet 15 x 13cm. Instruction sheet is A3, double sided heavy paper with coloured profiles on one side and B&W data stencil and aircraft details on the other.
KH-B, MA585, Spitfire Mk IXc, P/O George "Buzz" Beurling, 403 Sqn, RCAF, September, 1943
WD-W, EN354, Spitfire Mk IXc, 1Lt. Leonard V. Helton, 52nd FG, June, 1943

#185 Set
One sheet of decals -20 x 13cm. One sheet 13 x 13cm. Instruction sheet is A3, double sided heavy paper with coloured profiles on one side and B&W data stencil and aircraft details on the other.
YO-R, BS104, Spitfire Mk IXc, F/O T.K. Ibbotson, 401 Sqn, RCAF, August, 1942
AE-W, BS152, Spitfire Mk IXc, S/L Lorne M. Cameron, 402 Sqn, RCAF, March, 1943

These are really nice sets of large decals from EagleCals covering 4 different Spitfire Mk.IX aircraft, including one US version. If you are going to build the 1:24 Airfix Spitfire Mk.IXc kit, then these decal sets are well worth looking at with some interesting nose art on 3 of them. I must say, the huge wing roundels may be better off being sprayed on, but if you going to decal something that large, then these Cartograf printed decals will be your answer.

Highly Recommended
David Couche

Thanks to Eagle Editions for the review samples www.eagle-editions.com

S.B.S. MODEL

www.sbsmodel.com

SBS Model has released a set of 1:48 scale markings for Hungarian Messerschmitt Bf 109 G-10s.

Four subjects are covered on this sheet.

All four subjects feature the short tail wheel, tall tail and large wheel bulges for the wider late-style main wheels.

This combination of attributes is usually found on Bf 109 G-10s manufactured at the Wiener Neustädter Flugzeugwerke (WNF) / Diana factory.

The Eduard 1:48 scale WNF/Diana Bf 109 G-10, and the older Revell, Hobbycraft and Hasegawa kits will all be suitable for these markings. I would recommend the Eduard kit.

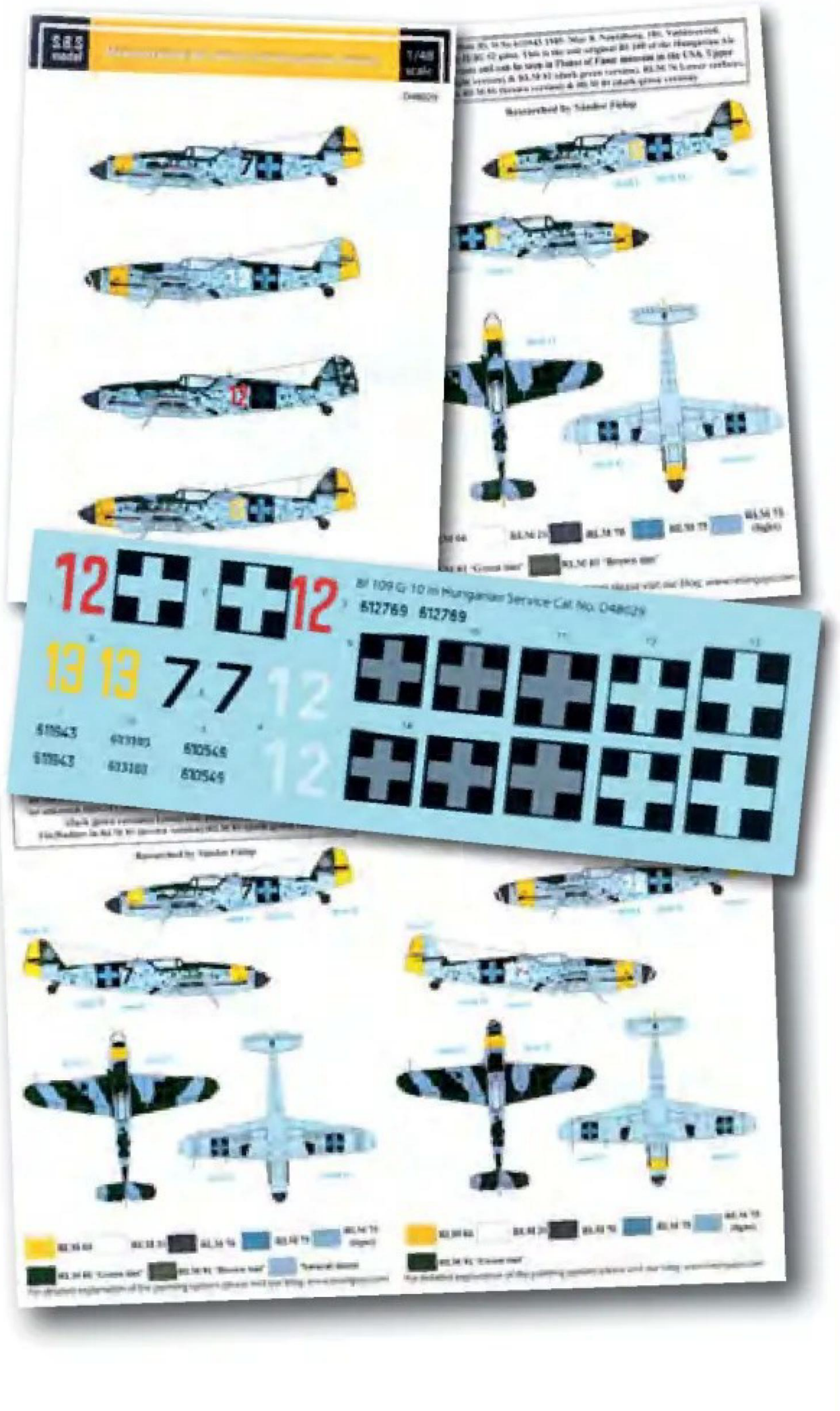
Four view diagrams are supplied for all four subjects.

The decals look to be high quality. They are in register and colours look good. Sufficient national markings are supplied for two models. A spinner spiral decal is not inlcuded.

This is a nice set of decals for anyone who would like markings for their Messerschmitt a little apart from the norm.

Recommended, Brett Green

Purchased by the reviewer from SBS Model



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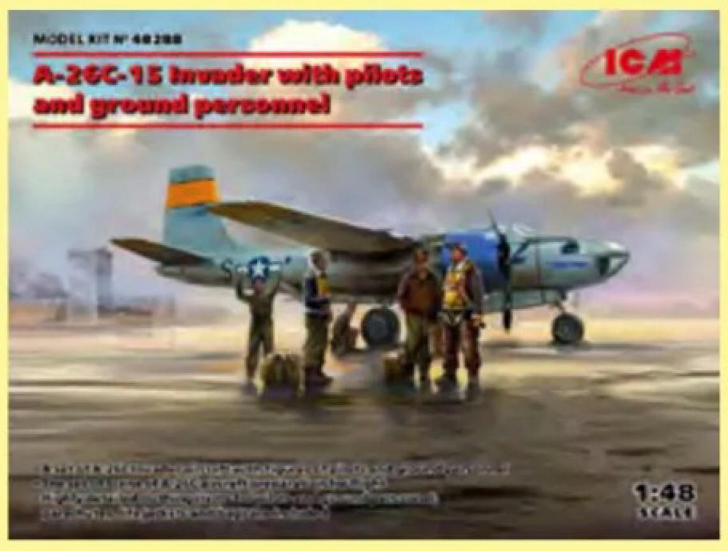
ICM New in the Best

ICM32038 1:32........... £43.80 de Havilland DH.82A Tiger Moth with bombs

ICM32090 1:32........... £49.80 Yakovlev Yak-9T (100% new moulds)



ICM48288 1:48........... £59.80 Douglas A-26C-15 Invader with pilots and ground personnel

ICM48289 1:48........... £67.80 Douglas 'Jig Do' JD-1D Invader with KDA-1 drone

ICM48302 1:48........... £75.80 'Desert Storm'. North-American/ Rockwell OV-10A and OV-10D+ Bronco 1991

ICM72030 1:72........... £15.20 Tupolev Tu-2T Soviet torpedo plane

ICM72140 1:72........... £19.20 Mikoyan MiG-29 'Fulcrum' The Ghost Of Kiev of Ukrainian Air Force.

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GAF CANBERRA MK 20

WE TAKE A CLOSE-UP LOOK AT THE GAF CANBERRA MK.20 AT THE QUEENSLAND AIR MUSEUM NEAR CALOUNDRA

Shortly after the end of the Second World War, the Australian government initiated a wide-scale reorganisation of the armed forces. As part of this process, the Royal Australian Air Force (RAAF) developed Plan D as the basis for its post war structure; Plan D was built around the concept of a numerically smaller, but more agile air arm that would employ leading-edge technology. During the late 1940s, the RAAF decided to acquire the Canberra as a replacement for, or complement to, the Avro Lincoln, though fears were raised that the new design was not especially advanced. While Australia never introduced nuclear weapons into service, the Canberra's ability to carry such a payload was a stated factor in its acquisition; Australia's planned force of 48 Canberras, which held the potential for being nuclear-armed, was viewed as far more potent and deterring to potential opponents than the RAAF's entire wartime forces of 254 heavy bombers.

The Australian government decided that the RAAF's Canberras would be constructed domestically by the Government Aircraft Factories as opposed to being manufactured in the UK. On 29 May 1953, the first Australian-built Canberra performed its first flight at Avalon Airport, Victoria; this aircraft was delivered to the RAAF for service trials a few weeks later. In December 1953, the Canberra formally entered Australian service.

From July 1950 to July 1960, during the Malayan Emergency, Canberras from Australia, New Zealand, and the UK were deployed into Malaysia to fight against Communist guerrillas. In 1967, the RAAF deployed eight Canberras to the Vietnam War. The unit, No. 2 Squadron, was later commended for its performance by

This is GAF Canberra MK 20 A84-225 at the Queensland Air Museum near Caloundra, on the Sunshine Coast.

the United States Air Force.[86] The Canberras were typically operated in the low-level bombing role, taking responsibility for South Vietnam's southernmost military regions, regions III and IV, and allowing USAF bombers to deploy their aircraft to the Ho Chi Minh trail. While USAF Canberras were equipped with .50 caliber machine guns or 20 mm cannon for strafing, Australian Canberras were deployed to South Vietnam without guns, hence were deployed strictly for low-level bombing missions. Upon their redeployment from Vietnam in 1971, No. 2 Squadron had flown about 12,000 sorties and dropped 76,389 bombs, and lost two of their aircraft to missiles and ground fire during the course of the war.

As early as 1954, Australia recognised that the Canberra was becoming outdated, and evaluated aircraft such as the Avro Vulcan and Handley-Page Victor as potential replacements. The Canberra was incapable of providing adequate coverage of Indonesia from Australian bases, and was evaluated as having a "very low" chance of survival if it encountered modern fighters like the MiG-17.

Political pressure for a Canberra replacement rose to a head in 1962. Australia evaluated the BAC TSR-2, Dassault Mirage IV, McDonnell Douglas F-4 Phantom II, and North American A-5 Vigilante, and initially appeared to favour the TSR-2, but chose to procure the General Dynamics F-111C in October 1963. Due in part to delays in the delivery of the F-111Cs, the Canberra continued to be used by Australia for a total of 29 years before its retirement in June 1982.

Historical summary courtesy of Wikipedia https://en.wikipedia.org/wiki/English_Electric_Canberra ■

Low view from the nose, forward looking aft.

The interior is finished in black paint with black quilted lining in places.

The crew hatch is missing.

Rolls-Royce Avon engine.

WINGS OVER MELBOURNE FORMULA 1

Australian Defence Force personnel supported Formula 1 Rolex Australian Grand Prix, held at Albert Park, Melbourne, from 30 March – 2 April 2023 with a range of thrilling flying and interactive ground displays.

Aerial displays included the Air Force Roulettes flying Pilatus PC-21 aircraft from the Central Flying School at RAAF Base East Sale, and Number 100 Squadron historic Supermarine Spitfire Mk.XVI.

Spectators also enjoyed the opportunity to get up close and personal with ground displays and interactive activities including Team Army's Project Digger, Matilda and Armygeddon, Army schools of armour and artillery displays, Australian Defence Academy Formula SAE Racing team, ADF Drone Racing Team, Air Force Balloon basket display, flying simulator provided by Air Force Motivation Program, talks by members of Defence Force Recruiting and live performances by Royal Australian Navy Band – Melbourne Rock Group. ■

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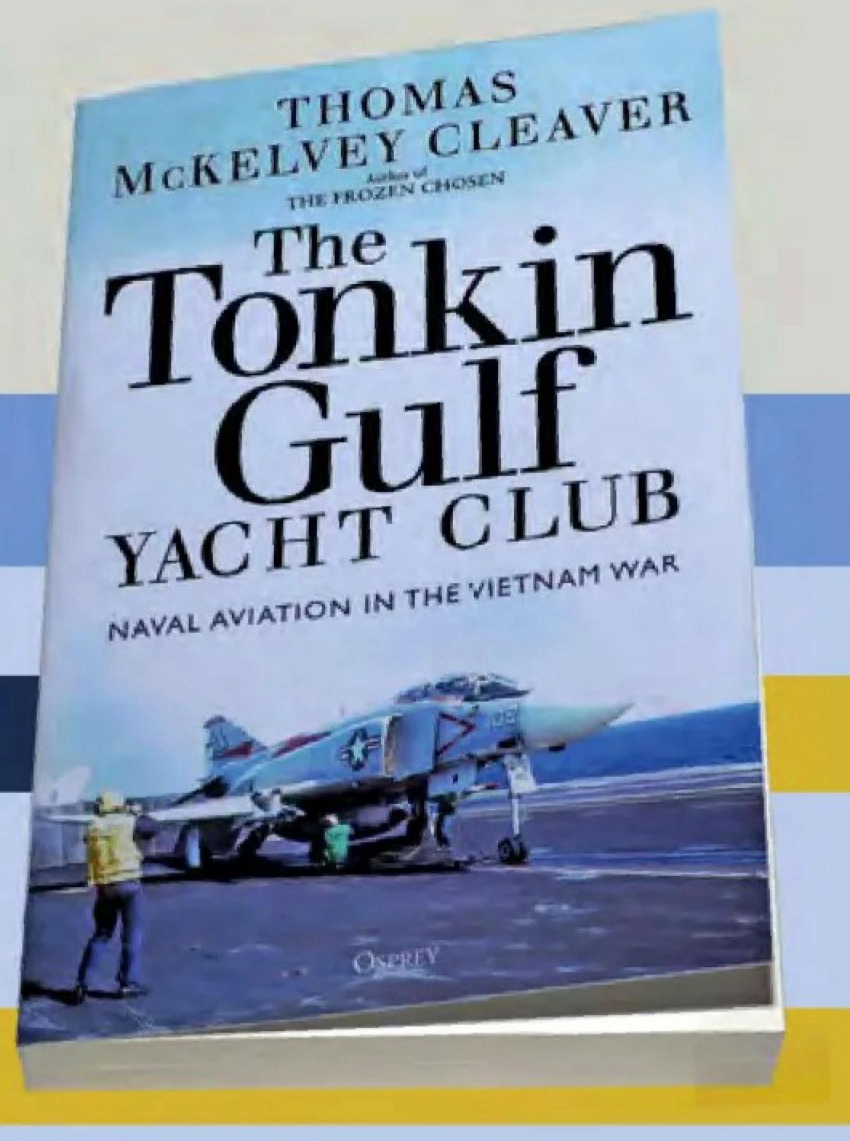
IN PRINT

OSPREY PUBLICATIONS

The Tonkin Gulf Yacht Club



www.ospreypublishing.com

- By Thomas McKelvey Cleaver
- Published by Osprey Publishing
- Guide Price £15.99
- ISBN: 978-1-4728-4594-8
- 400pp softback, 235 x 153mm

We don't often let you know about a purely reading book. Modellers mostly want picture books to give inspiration and help with their latest project. We felt that this book was worth bringing to readers' attention for the story that it tells. Those building modern jets may be interested in what this book has to say about US Naval aviation and action in the Vietnam War in particular. I only vaguely remember Vietnam reports at the time. Unlike wars today that are on the television news and internet daily with instant reports, Vietnam combat reports were appearing rather more slowly in the 1960s and early 70s. The growing demonstrations taking place in the States against the war tended to be the main Vietnam War news topic.

Author, Tom Cleaver was in the US Navy at the time but as is often the case became aware of the full picture well after the event. Only some 50 years after the war were the secret papers released in the US for general scrutiny. As time has passed, reports from the North Vietnamese side are also available as those taking part have written their recollections and official papers are released. So, the complete picture gradually emerges from the mists of time and Vietnam is seen today in a very different light and a popular holiday destination.

Tom Cleaver's book begins with how the Vietnam War began. The resemblance to the beginnings of the Gulf War is striking. Following only about 10 years after the Korean War there was a great fear of communism in the US Government that would lead to an unwinnable armed conflict with communist North Vietnam that would last for 10 years. This book describes the US Navy's participation in the war. At times, the US Navy would have five aircraft carriers operating in the Gulf of Tonkin. Missions were flown within ridiculous rules of engagement imposed by US politicians with very little understanding of air warfare and unwillingness to listen to US military experts. The US government looked on North Vietnamese body counts, the number of missions flown and tonnage of bombs dropped as indicators of how the war was progressing. The most striking thing about the book is the bravery of US Navy pilots, operating over North Vietnam in the most hazardous anti-aircraft environment ever conceived.

At the beginning of the war, the US Navy's aircraft were not suitable for the environment in which they had to fly and fight. Their F-4B Phantom is a good example of a superb plane that was designed to intercept Russian bombers, not to take part in close air-to-air fighting with North Vietnamese MiG 17 and MiG 21 fighters. MiGs were small, very agile and most crucially, armed with guns as well as air-to-air missiles. The Phantom's lack of a gun and armed with Sparrow and Sidewinder missiles that were failing to work on many occasions would constantly endanger US Navy crews.

Tom Cleaver goes on to describe the various aircraft that would enter service during the Vietnam War as well as those in service at the outbreak of war. Many eye-witness stories are included from crews operating these planes. Some of the most remarkable are the operations of the US Navy's Skyraider fleet. Skyraiders, dating back to the end of WWII, were considered to be of limited use against the MiGs but would prove to be invaluable as precision bombers, able to fly long missions and shoot down the occasional MiG too. Their ability to fly long missions would enable them to guard downed US pilots while rescue helicopters arrived to pick up shot down US Navy and Air Force crew. Reports of these missions could fill an exciting book. We then read of how the A-6 Intruders and A-7 Corsair IIs were introduced to the fight. Stories of Skyhawk and Sky Warrior missions make interesting reading. As the US Navy retired their Skyraiders, the USAF would snap them up for the same close air support missions. Also, the role of the Sky Warriors would change from a bomber to an aerial tanker and radar suppression ECM aircraft.

Reports of the second major phase of the

SAMPLES FOR REVIEW

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war make exciting reading. While the North Vietnamese pilots were training in China and Russia, becoming more skilled, the US Navy was addressing their skills shortages with the setting up of Top Gun. A chapter is devoted to how Top Gun was conceived and set up. Top Gun was able to use captured MiGs to fly against in aerial combat training in as close to reality as possible. The difference this would make when pilots returned to the fleet and fly missions was amazing. Early doubts amongst pilots and the navy hierarchy about how effective the courses would be were soon dismissed on seeing Top Gun graduates taking down MiG 19s and 21s with far fewer losses. Soon there would be a waiting list of fighter air crew eager to join Top Gun courses.

The final chapters take us through the frantic days of the fall of South Vietnam when thousands of people were rescued from Saigon as the north's forces approached the city. The final chapter describes the final military action by US forces in the area when the new Khmer Rouge regime in Cambodia captured an American container ship and its crew in May 1975. An exciting film could be made of the following action to recover the ship and its crew.

We thoroughly recommend this book. There are hours of reading for those interested in war in the air. Tom Cleaver's writing flows, making the book a real page-turner. Much of the detail is incredible with many pilots' first-hand reports keeping the readers' attention. North Vietnamese pilots' reports are also included. Some US Navy pilot's possible kills would only be confirmed years after the war ended when 'possibles' would be confirmed from North Vietnamese records later. After reading this book, we will be looking out a kit of one of the aircraft that took part in the war for a new build.

Thanks to Osprey Publishing for the sample www.ospreypublishing.com

Alan Firbank

COMBAT AIRCRAFT 148

Nakajima Ki-49 'Helen' Units

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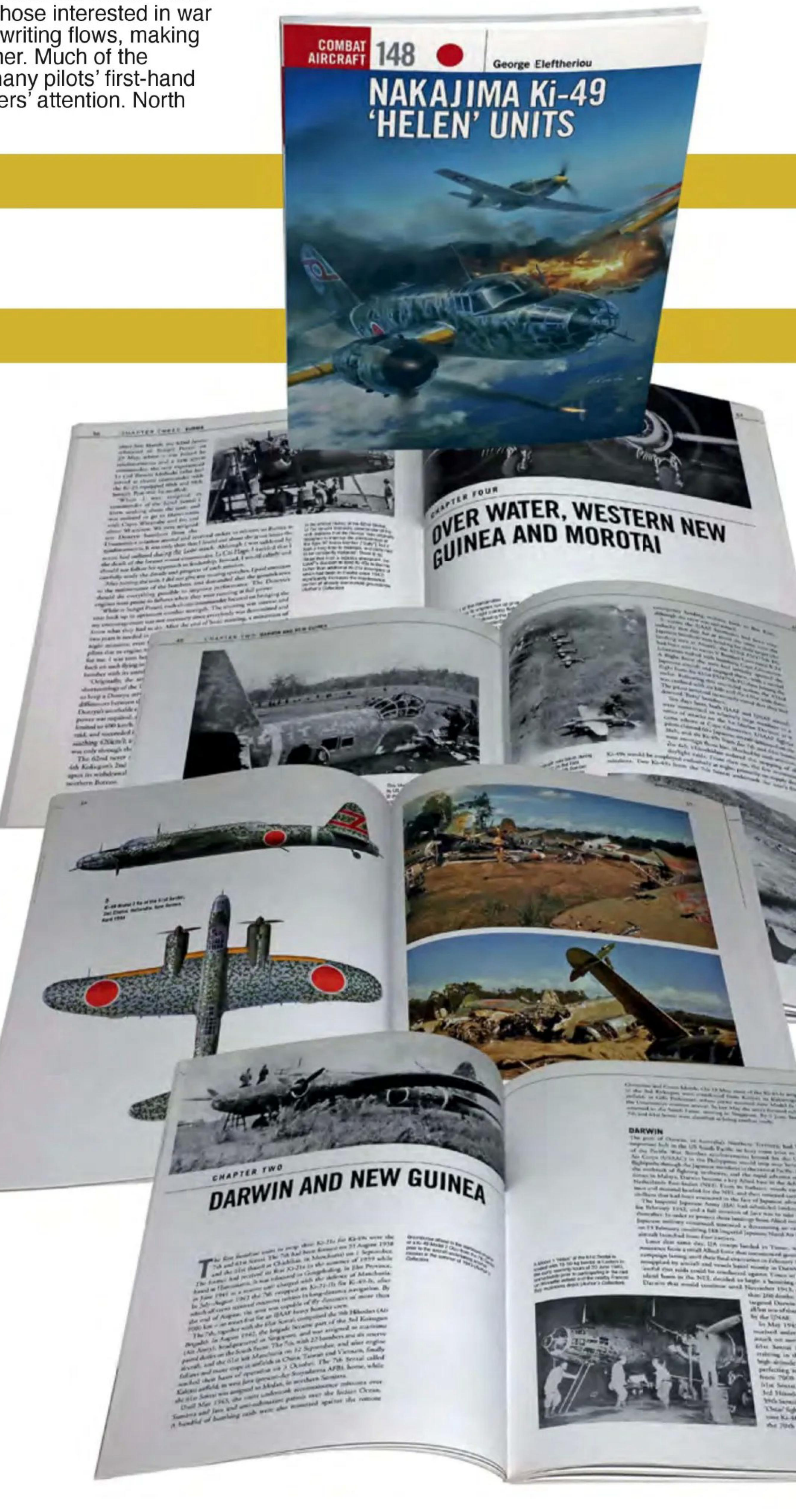

- By George Eleftheriou
- Published by Osprey Publishing
- Guide Price £16.99
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- 96pp softback, 248 x 185mm

Osprey's long-running Combat Aircraft series continues at a good pace. This latest book on one of the Japanese lesser known aircraft from WWII. The author is a specialist on Japanese aircraft from the period. This book follows the usual pattern with a mixture of interesting text and useful photos and some superb colour profiles and a number of rare colour photos.

This book's opening chapters take us through the development of the 'Helen' and compares it to other aircraft with a similar role during WWII. From some respects, the Helen compared well with such as the Wellington but while having more powerful engines and could fly higher, its range and bomb load was inferior. These early chapters also describe the tactics used by the Helen crews. Towards the end of the war, rather than attempt to bomb allied shipping, crews were directed to crash their aircraft with its bombs into the target.

Following chapters describe Ki-49 operations in the major areas of the Pacific war where the Japanese and mainly American forces were in constant contact with each other. Towards the end of the war, the action became ever more one-sided as the Japanese occupiers of the Pacific region became weaker with the losses of equipment and manpower mounting. It is interesting to see that some of the text describes the action from the Japanese side with several eye-witness reports. Many missions were very ambitious and launched against all the odds. Some of the descriptions show that missions dissolved into chaos with losses from US fighters, flying accidents, aircraft unreliability, bad weather and aircraft getting lost. In one attack on US airfields, the Ki-49s on route to their target flew directly over a US Navy convoy and were all brought down by anti-aircraft fire from the ships. More Ki-49s fell victim to destruction on their airfields when attacked by American aircraft as can be seen in post attack reconnaissance photos.

The colour section at the centre of this book illustrates some interesting colour schemes with some very difficult to reproduce on a small-scale model. It is all well and good painting intricate patterns by hand on a full-sized aircraft but a real headache to apply to a model.

Having recently read one of these books on P-38 operations in the Pacific and found it a really good read and inspiration when looking at my pile of to do kits. Kits of the Ki-49 are available but the choice is very limited but if you have one or are just interested in the air war in the Pacific, I recommend adding this to your library.

Thanks to Osprey Publishing for the sample www.ospreypublishing.com

A WELCOME VISITOR

SPENCER POLLARD GETS UP CLOSE AND PERSONAL WITH A VISITING T-28 FENNEC.

During the summer months my wife and I like to travel across our home county to visit the old WWII bomber base at Sleap that is now home the Shropshire Aero Club. Popular with fly-in visitors, it is home to a fantastic cafe, so on warm summer afternoons it is a perfect place to spend a few hours watching the world fly by.

During one of our recent visits, we came across this beautiful T-28A Fennec that had flown in. Privately owned, this machine is now painted in USAF markings that reflect its use in military service. As you can image, I was delighted to not only see this aircraft in the flesh (despite missing its arrive by only a few minutes!) but also take some pictures of it for you to enjoy! ■

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U.S. AIR FORCE

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EVACUATION FROM SUDAN

Personnel of 3 Commando Brigade and Joint Force Head Quarters deployed to Cyprus in support of the FCDO Non-combative Evacuation Operation to remove personnel from Sudan.

They received early morning briefs, prepared and departed RAF Akrotiri on a C-130 Hercules.

The UK has undertaken a military operation to evacuate British nationals from Sudan, due to escalating violence. The armed forces conducted this complex operation under extremely challenging circumstances and their bravery and courage is commended.

The operation involved more than 1,200 personnel from 16 Air Assault Brigade, the Royal Marines and the Royal Air Force. ■

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ROYAL INTERNATIONAL AIR TATTOO 2023

The Royal Air Force enjoyed a fantastic weekend of aviation as The Royal International Air Tattoo 2023 (RIAT) celebrated 100 years of air-to-air refuelling. To mark the anniversary, the RAF's refuelling aircraft — Voyager — flew with colleagues from a range of countries to demonstrate the aircraft's capability.

The RAF was joined by allies and partners from around the world, including the Italian Air Force, which was also celebrating, with 2023 being the centenary of its formation.

Elsewhere, RAF display teams including the Chinook, Typhoon and Red Arrows took to the skies to show off their skills. The RAF village gave visitors to the show the chance to learn about other trades in the RAF such as the RAF Regiment, reserve units and sporting teams, as well as the pioneering work of the Astra team.

One of the most popular exhibits was the C-17 aircraft used to repatriate Her Majesty The Queen. There were also plenty of opportunities to get up close with other aircraft, including the F-35B jet and the A400M transport aircraft. Royal Saudi Air Force Hawks. ■

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HMS Queen Elizabeth Autumn Deployment

A team of Naval Airman Aircraft Handlers secure an F-35B during Exercise Phoenix Strike.

Exercise Phoenix Strike is a Norwegian led exercise with the UK, integrating our combined 5th generation capability and Norwegian Special Forces, in a variety of mission sets. These include practicing Air-to-Air Tactical Intercepts, Offensive Combat Air (OCA) and Suppression of Enemy Air Defences (SEAD).

The sorties will involve departing from HMS QUEEN ELIZABETH to rendezvous with a Voyager in northern Norway. This will enable the UK F-35 to refuel, before entering into the exercise which extends down the majority of the Norwegian coast.

The exercise affords us the opportunity to practice common tactics with 5th generation partner nations, demonstrating the interoperability of the F-35 program.

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